Community Development

2024 Larimer County Building Code Amendments

EFFECTIVE DATE: January 1st, 2026

Revised November 25th, 2025

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2024 INTERNATIONAL BUILDING CODE (IBC)

Chapter 1 – Administration

The following section is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the *Building Code* of Larimer County, hereinafter referred as "this code."

The following section is hereby amended to read as follows:

101.2 Scope. The provisions of this code shall apply to the construction, *alteration*, relocation, enlargement, replacement, *repair*, equipment, use and occupancy, location, maintenance, removal and demolition of every *building* or *structure* or any appurtenances connected or attached to such *buildings* or *structures.*

Exception:
Detached one- and two-family *dwellings* and *townhouses* not more than three *stories above grade plane* in height with a separate *means of egress*, *short-term rentals*, *resort lodge cottages* with ten or less occupants, and their accessory *structures* not more than three *stories above grade plane* in height, shall comply with this code or the *International Residential Code*.

The following section is hereby amended to read as follows:

101.4 Referenced Codes. The other codes specified in Sections 101.4.1 through 101.4.8 as adopted and amended by Larimer County and referenced elsewhere in this code shall be considered to be part of the requirements of this code to the prescribed extent of each such reference.

The following section is hereby amended to read as follows:

101.4.3 Plumbing. The provisions of the *International Plumbing Code* shall apply to the installation, *alteration, repair* and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. The provisions of the most recent edition of the Larimer County On-site Wastewater Treatment System Regulations enforced by the Larimer County Department of Health and Environment shall apply to private sewage disposal systems.

The following section is hereby amended to read as follows:

101.4.4 Property maintenance. The provisions of the *International Property Maintenance Code* shall apply to *existing structures* and premises; equipment and *facilities*; life and fire safety hazards; responsibilities of *owners*, operators and occupants; and occupancy of existing premises and structures.

The following section is hereby added to read in its entirety as follows:

101.4.8 Electrical. The provisions of the latest edition of the National Electrical Code as adopted by Larimer County shall apply to the design, construction, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of electrical systems and equipment.

The following section is hereby amended to read as follows:

102.2 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings and structures under the scope of this code shall also comply with the Colorado Wildfire Resiliency Code, the Colorado Model Electric-Ready and Solar-Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code, and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

103.1 Creation of enforcement agency. The Building Division is hereby created and the official in charge thereof shall be known as the *building official.* The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

The following section is hereby amended to read in its entirety as follows:

104.2.4.1 Flood hazard areas.

The County Engineer shall not grant modifications to any provision required in *flood hazard areas* as established by the Larimer County Land Use Code without the granting of a variance to such provisions by the County Engineer.

The following section is hereby amended to read as follows:

104.3.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas. For applications for reconstruction, rehabilitation, repair, alteration, addition or other improvement of existing buildings or structures located in flood hazard areas, the County Engineer shall determine if the proposed work constitutes substantial improvement or repair of substantial damage. Where the County Engineer determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by this code, the building shall meet the requirements of the Larimer County Land Use Code.

The following sections are hereby deleted in their entirety:

~~**105.1.1 Annual permit.**~~

~~**105.1.2 Annual permit records.**~~

The following section is hereby amended to read as follows:

105.2 Work exempt from permit. Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction. Permits* shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided that the floor area is not greater than 120 square feet (11 m^2) and there are no utilities installed.
2. Fences, other than swimming pool barriers, not over 7 feet (2,134 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from a point eight feet horizontally downslope from the low side finish grade to the high side finish grade behind the wall, provided that the horizontal distance to the next uphill retaining wall is at least equal to twice the height of the upper wall unless supporting a surcharge or impounding Class I, II or IIIA liquids. [See Figure 105.2.4]
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18,925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any *basement* or *story* below and are not part of an *accessible* route.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated *swimming pools* accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18,925 L) and are installed entirely above ground.
10. Shade cloth and maximum 6-mil single layer poly-roofed *structures* constructed for nursery or agricultural purposes, with no entry by the general public, not including service systems.
11. Swings and other playground equipment accessory to detached one- and two-family dwellings, including not more than one elevated playhouse per lot, designed and used exclusively for play, not exceeding 64 square feet (5.9 m^2) of floor area nor 8 feet (2.44 m) in height as measured from the floor to the highest point of such structure.
12. Window *awnings* supported by an *exterior wall* that do not project more than 54 inches (1,372 mm) from the *exterior wall* and do not require additional support, storm windows, storm doors, and rain gutter installation.
13. Nonfixed and movable fixtures, cases, racks, counters, and partitions not over 5 feet 9 inches (1,753 mm) in height.
14. Roofing repair or replacement work not exceeding one square (100 square feet) or less than 25% of covering per *building*, whichever is less.
15. Replacement of less than 25% of nonstructural siding per *building* that is not part of a fire-rated assembly, when the removal of siding is performed in accordance with State laws regarding asbestos and lead paint.
16. Window or door replacement that requires no structural alterations and which does not affect an exit pathway, accessible route or fire-rated construction.

Electrical:

1. ***Repairs* and maintenance:** Minor *repair* work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.
2. **Radio and television transmitting stations:** The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for a power supply and the installations of towers and antennas.
3. **Temporary testing systems:** A *permit* shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (0.75 kW) or less.
8. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe, provided, however, that if any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of plumbing fixtures, provided that such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures**.**

FIGURE 105.2.4 RETAINING WALL PERMIT EXEMPTIONS

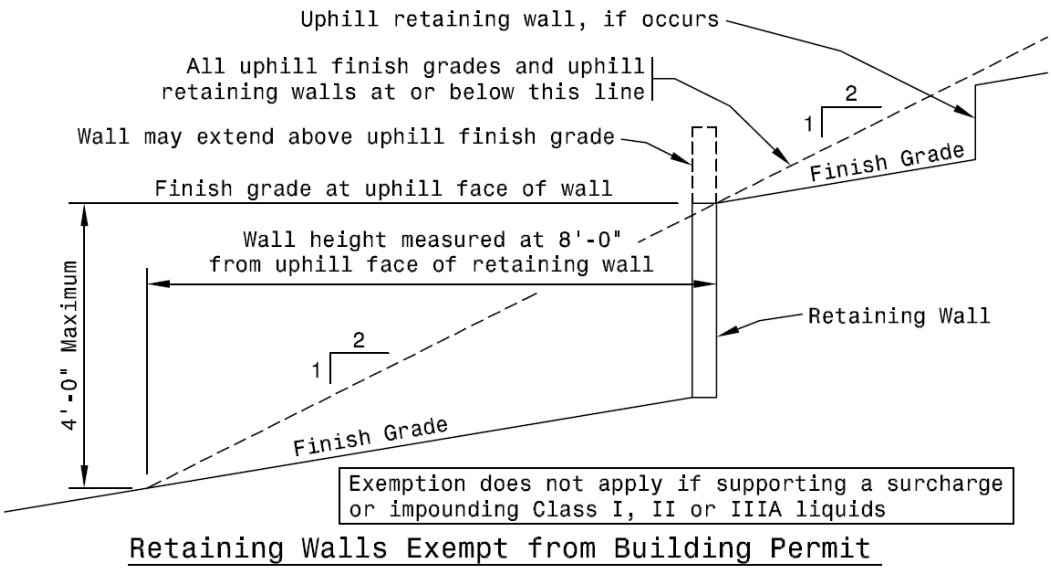


Figure 105.2.4

The following section is hereby amended to read as follows:

105.3.2 Time limitation of application. An application for a *permit* for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a *permit* has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

The following section is hereby amended to read as follows:

107.2.6.1 Design flood elevations.

Where design flood elevations are not specified, they shall be established in accordance with Section 1612.

The following section is hereby amended to read as follows:

107.3.1 Approval of construction documents. When the *building official* issues a *permit*, the *construction documents* shall be *approved*, in writing, electronically or by stamp. One set of *construction documents* so reviewed shall be retained by the *building official*. The other set shall be returned to the applicant, with an approved hard copy kept at the site of work and open to inspection by the *building official* or a duly authorized representative.

The following section is hereby added to read as follows:

109.7 Re-inspection fees. A re-inspection fee may be assessed for each inspection or re-inspection when access to the work is not provided on the date for which inspection is requested, a readily visible address is not posted, the inspection record card is not posted or otherwise available on site, the approved plans are not readily available in a visible location for the inspector, such portion of work for which inspection is called for is not complete, corrections called for are not made or already covered, work deviates from plans approved by the *building official*, or for other good and sufficient cause as determined by the *building official*. To obtain a re-inspection, the applicant shall pay the re-inspection fee in accordance with the adopted Larimer County fee schedule. When re-inspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

The following section is hereby amended to read as follows:

110.3.3 Lowest floor elevation.

In *flood hazard areas*, upon placement of the *lowest floor*, including the *basement*, and prior to further vertical construction, the elevation certification required in Section 1612 or the International Residential Code, as applicable, shall be submitted to the building official.

The following section is hereby amended to read as follows:

110.3.12.1 Flood hazard documentation.

If located in a flood hazard area, documentation of the elevation of the *lowest floor* or the elevation of dry floodproofing, if applicable, as required in Section 1612 shall be submitted to *the building official* prior to the final inspection.

The following section is hereby amended to read as follows:

110.3.4 Frame inspection. Framing inspections shall be made after the *roof deck* or sheathing, all framing, *fire-blocking* and bracing are in place and pipes, chimneys, and vents, to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are complete.

The following section is hereby amended to read as follows:

111.1 Change of occupancy. A *building* or *structure* shall not be used or occupied in whole or in part, and a *change of occupancy* of a *building* or *structure* or portion thereof shall not be made, until the *building official* has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the *jurisdiction*. Certificates presuming to give authority to violate or cancel the provisions of this code or other ordinances of the *jurisdiction* shall not be valid.

Exceptions:

1. Certificates of occupancy are not required for work exempt from *permits* in accordance with Section 105.2.
2. Shell, agricultural and accessory *buildings* and miscellaneous permits shall not receive certificates of occupancy; a letter of completion will be issued upon request.

The following section is hereby amended to read as follows:

111.2 Certificate issued. 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 department, the *building official* shall issue a certificate of occupancy that may contain the following:

1. The *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. The use and occupancy, in accordance with the provisions of Chapter 3.
9. The type of construction as defined in Chapter 6.
10. The design *occupant load*.
11. Where an *automatic sprinkler system* is provided, whether the sprinkler system is required.
12. Any special stipulations and conditions of the building *permit*.

The following section is hereby amended to read as follows:

111.3 Temporary occupancy. The *building official* is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the *permit*, provided that such portion or portions shall be occupied safely. A Temporary Certificate of Occupancy (TCO) shall be valid for 180 days and may be extended by the *building official*. The fee for each TCO shall be in accordance with the fee schedule established by Larimer County**.**

***The following section is hereby amended to read as follows*:**

113.4 Administration. To appeal a written determination of the *building official* to the Board of Appeals, a written appeal must be received by the *building official* within thirty (30) days of the date of the determination being appealed. The appellant shall, at the time of making such appeal, pay to the Larimer County Building Division an appeal fee as specified in the Larimer County fee schedule. The *building official* shall send written notice of hearing to all parties concerned at least fourteen (14) days prior to the hearing by mailing the same to such parties' last known address by regular mail. All meetings or hearings shall be open to the public. The Board of Appeals shall, from time to time, adopt such additional rules and regulations as it deems necessary and advisable for the conduct of its hearings and for carrying out the provisions hereof. The *building official* shall take action without delay in accordance with the decision of the board.

Chapter 2 – Definitions

***The following section is hereby amended by modifying or adding definitions, in alphabetical order, to read as follows**:*

202 DEFINITIONS

BED AND BREAKFAST INN. An establishment operated in a principal dwelling or portion thereof, which provides transient accommodations for a fee to no more than 20 overnight guests, a meal limited to guests only, and that is occupied by the owner or operator of such establishment. A bed and breakfast inn may provide accommodations to individuals or multiple separate parties concurrently on both a reservation or a walk-in basis. The term "party" as used in this definition shall mean one or more persons who stay at a bed and breakfast inn as a single group pursuant to a single reservation and payment.

FACTORY-BUILT FIREPLACE. A listed assembly of a fire chamber, its chimney and related factory-made parts designed for unit assembly without requiring field construction. Factory-built fireplaces are not dependent on mortar-filled joints for continued safe use.

FIREPLACE INSERT. A wood burning device designed to be installed in an existing fireplace.

INTERNATIONAL FIRE CODE. The *International Fire Code* as adopted, amended, and administered by and within a fire district.

LARGE SHORT-TERM RENTAL, HOSTED. A principal dwelling occupied by a full-time resident or owner living on-site where short term lodging (30 days or less) is provided to more than 10 but no more than 16 transient guests.

NON-RESTRICTED AREA. That part of unincorporated Larimer County located west of Range 71 or north of the north half of Township 10, and east of Range 72 as shown on the Larimer County Fireplace Area Map.

RESORT LODGE COTTAGE(S). A building or group of buildings, under single management and ownership with an onsite manager or staff, containing rooms and/or units available for temporary rental to transient guests, which serves as a destination point for visitors, and where the primary attraction is major recreational features or activities for persons on vacation**.**

RESTRICTED AREA. That part of unincorporated Larimer County located outside the Non-restricted Area as shown on the Larimer County Fireplace Area Map.

SHORT-TERM RENTAL. A dwelling constructed under the scoping provisions of the International Residential Code, rented to no more than ten transient guests who are part of a single party pursuant to a single reservation and payment, for lodging of 30 days or less when not occupied by the owner/operator.

SHORT-TERM RENTAL, HOSTED. A principal dwelling occupied by a full-time resident or owner living on-site where short term lodging (30 days or less) is provided to no more than 10 transient guests.

SOLIDLY SHEATHED DECK. A roof deck with gaps between planks or sheathing not exceeding 1/8 inch.

WOOD STOVE: An appliance designed for or capable of burning wood and capable of and intended for domestic space heating or domestic water heating.

Chapter 3 – Use and Occupancy Classification

The following section is hereby amended to read as follows:

305.2.3 Children in a dwelling unit. A *facility* such as the above within a *dwelling unit* having children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

The following section is hereby amended to read as follows:

310.2 Residential Group R-1. Residential Group R-1 occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily *transient* in nature, including:

Boarding houses (transient) with more than 10 occupants
Congregate living facilities (transient) with more than 10 occupants
Hotels *(transient)*
Motels *(transient)*
Bed and Breakfast Inn
Large Short-term Rental, Hosted
Lodging houses with more than five *guest rooms*
Resort Lodge Cottages with more than 10 occupants.

The following section is hereby amended to read as follows:

310.4.1 Care facilities within a dwelling. Care *facilities* for five or fewer *persons* receiving care that are within a single-family *dwelling* are permitted to comply with the *International Residential Code.* Day care facilities for children within a *dwelling unit* shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

The following section is hereby amended to read as follows:

310.4.2 Lodging houses. *Owner*-occupied *lodging houses* with five or fewer *guest rooms* shall be constructed in accordance with this code or the *International Residential Code*.

Chapter 4 – Special Detailed Occupancies Based on Occupancy and Use

The following section is hereby added to read as follows:

SECTION 420.12 Radon-resistant construction. Newly constructed buildings shall provide radon mitigation systems complying with the *2024 International Residential Code*, Appendix BE, as amended by Larimer County.

The following section is hereby added to read as follows:

SECTION 429 BEVERAGE DISPENSING APPLICATIONS.

429 Insulated liquid carbon dioxide systems used in beverage dispensing applications. Insulated liquid carbon dioxide systems with more than 100 pounds (45.4 kg) of carbon dioxide used in beverage dispensing applications shall comply with the *International Mechanical Code, the International Fire Code* and this section.

429.1 Ventilation. Where insulated liquid carbon dioxide storage tanks, cylinders, piping and equipment are located indoors, rooms or areas containing storage tanks, cylinders, piping and equipment, and other areas where a leak of carbon dioxide is expected to accumulate, shall be provided with mechanical ventilation in accordance with the *International Mechanical Code.* The exhaust system shall be designed to provide air movement across all portions of the floor or room to prevent the accumulation of vapors and maintain the room containing carbon dioxide at a negative pressure in relation to the surrounding area. Exhaust shall be taken from a point within 12 inches (305 mm) of the floor. Mechanical ventilation shall be at a rate of not less than 1 cubic foot per minute per square foot [0.00508 $m^3/(s \times m^2)$] of floor area over the storage area and shall operate continuously unless alternative designs are *approved*. A manual shutoff control shall be provided outside of the room in a position adjacent to the access door to the room or in an approved location. The switch shall be a break-glass or other approved type and shall be labeled: "VENTILATION SYSTEM EMERGENCY SHUTOFF."

Exception: A gas detection system complying with Section 429.2 shall be permitted in lieu of mechanical ventilation.

429.2 Gas detection system. Where ventilation is not provided in accordance with Section 429.1, a *gas detection system* shall be provided in rooms or indoor areas and in below-grade outdoor locations with insulated carbon dioxide systems. Carbon dioxide sensors shall be provided within 12 inches (305 mm) of the floor in the area where the gas is expected to accumulate or other *approved* locations. The system shall be designed as follows:

1. Activates an audible and visible supervisory alarm at a normally attended location upon detection of a carbon dioxide concentration of 5,000 ppm (9,000 mg/m^3).
2. Activates an audible and visible alarm within the room or immediate area where the system is installed upon detection of a carbon dioxide concentration of 30,000 ppm (54,000 mg/m^3).

Chapter 5 – General Building Heights and Areas

The following section is hereby added to read as follows:

502.2 Premises Identification During Construction. The approved *permit* number and street address shall be displayed and be plainly visible and legible from the public street or road fronting the property on which any *building* is being constructed or remodeled.

Chapter 9 – Fire Protection Systems

The following section is hereby amended to read as follows:

902.1 Pump and rise room size. Where provided, fire pump rooms and *automatic sprinkler system* riser rooms shall be designed with adequate space for all equipment necessary for the installation, as defined by the manufacturer, with sufficient working room around the stationary equipment. Clearances around equipment to elements of permanent construction, including other installed equipment and appliances, shall be sufficient to allow inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Fire pump and automatic sprinkler system riser rooms shall be provided with doors and unobstructed passageways large enough to allow removal of the largest piece of equipment and no less than 32" net clear width.

[The following amendments to Section 903.2 shall only apply within the unincorporated Larimer County portion of the Poudre Valley Fire Protection District.]

This section is hereby amended to read as follows:

903.2.1.1 Group A-1. An *automatic sprinkler system* shall be provided throughout stories containing Group A-1 occupancies and throughout all *stories* from the Group A-1 occupancy to and including the *levels of exit discharge* serving that occupancy where one of the following conditions exists:

1. The *fire area* exceeds 5,000 square feet (464.5 m^2).
2. The *fire area* has an *occupant load* of 300 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.
4. The *fire area* contains a multitheater complex.

This section is hereby amended to read as follows:

903.2.1.3 Group A-3. An *automatic sprinkler system* shall be provided throughout *stories* containing Group A-3 occupancies and throughout all *stories* from the Group A-3 occupancy to and including the *levels of exit discharge* serving that occupancy where one of the following conditions exists:

1. The *fire area* exceeds 5,000 square feet (464.5 m^2).
2. The *fire area* has an *occupant load* of 300 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

This section is hereby amended to read as follows:

903.2.1.4 Group A-4. An *automatic sprinkler system* shall be provided throughout *stories* containing Group A-4 occupancies and throughout all *stories* from the Group A-4 occupancy to and including the *levels of exit discharge* serving that occupancy where one of the following conditions exists:

1. The *fire area* exceeds 5,000 square feet (464.5 m^2).
2. The *fire area* has an *occupant load* of 300 or more.
3. The *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

The following section is hereby amended to read as follows:

903.2.2 Group B. An automatic sprinkler system shall be provided for Group B occupancies as required in Sections 903.2.2.1, 903.2.2.2 and 903.2.2.3.

The following section is hereby added to read as follows:

903.2.2.3 Group B over 5,000 square feet. An *automatic sprinkler system* shall be provided throughout all Group B *fire areas* exceeding 5,000 square feet (464.5 $m^{2)}$ in area.

The following section is hereby amended to read as follows:

903.2.3 Group E. An *automatic sprinkler system* shall be provided for Group E occupancies as follows:

1. Throughout all Group E *fire areas* greater than 5,000 square feet (464.5 m^2) in area.
2. The Group E *fire area* is located on a floor other than a *level of exit discharge* serving such occupancies.

   Exception: In buildings where every classroom has not fewer than one exterior exit door at ground level, an *automatic sprinkler system* is not required in any area below the lowest *level of exit discharge* serving that area.
3. The Group E *fire area* has an occupant load of 300 or more.

This section is hereby amended to read as follows:

903.2.4 Group F-1. An *automatic sprinkler system* shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exist:

1. A Group F-1 *fire area* exceeds 5,000 square feet (464.5 m^2).
2. A Group F-1 *fire area* is located more than three stories above *grade plane*.
3. The combined area of all Group F-1 *fire areas* on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m^2).
4. A Group F-1 occupancy is used to manufacture lithium-ion or lithium metal batteries.
5. A Group F-1 occupancy is used to manufacture vehicles, energy storage systems or equipment containing lithium-ion or lithium metal batteries where the batteries are installed as part of the manufacturing process.

A new section is hereby added to read as follows:

903.2.4.4 Group F-2. An *automatic sprinkler system* shall be provided throughout *buildings* containing a Group F-2 occupancy where one of the following conditions exist:

1. A Group F-2 *fire area* exceeds 5,000 square feet (464.5 m^2).
2. A Group F-2 *fire area* is located more than three stories above *grade plane*.

The following section is hereby amended to read as follows:

903.2.6 Group I. An *automatic sprinkler system* shall be provided throughout *buildings* with a Group I *fire area*.

Exceptions:

1. An *automatic sprinkler system* is not required where Group I-4 day care facilities are at the *level of exit discharge* and where every room where care is provided has not fewer than one exterior exit door and the *fire area* does not exceed 5,000 square feet (464.5 m^2).
2. In buildings where Group I-4 day care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the *level of exit discharge*, and all floors below the *level of exit discharge* other than areas classified as an open parking garage.

The following section is hereby amended to read as follows:

903.2.7 Group M. An *automatic sprinkler system* shall be provided throughout *buildings* containing a Group M occupancy where one of the following conditions exists:

1. A Group M *fire area* exceeds 5,000 square feet (464.5 m^2).
2. A Group M *fire area* is located more than three stories above *grade plane*.
3. The combined area of all Group M *fire areas* on all floors, including any mezzanines, exceeds 24,000 square feet (2,230 m^2).

The following section is hereby amended to read as follows:

903.2.9 Group S-1. An *automatic sprinkler system* shall be provided throughout all *buildings* containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 *fire area* exceeds 5,000 square feet (464.5 m^2)
2. A Group S-1 *fire area* is located more than three stories above *grade plane*.
3. The combined area of all Group S-1 *fire areas* on all floors, including any mezzanines, exceeds 24,000 square feet (2,230 m^2).
4. A Group S-1 *fire area* used for the storage of *commercial motor vehicles* where the *fire area* exceeds 5,000 square feet (464 m^2).
5. A Group S-1 *fire area* used for the storage of lithium-ion or lithium metal powered vehicles where the *fire area* exceeds 500 square feet (46.4 m^2).

The following section is hereby amended to read as follows:

903.2.9.1 Repair garages.

An *automatic sprinkler system* shall be provided throughout all buildings used as *repair garages* in accordance with Section 406, as shown:

1. *Buildings* having two or more *stories above grade plane*, including *basements*, with a *fire area* containing a *repair garage* exceeding 5,000 square feet (464.5 m^2).
2. *Buildings* not more than one *story above grade plane*, with a *fire area* containing a *repair garage* exceeding 5,000 square feet (464.5 m^2).
3. *Buildings* with *repair garages* servicing vehicles parked in *basements*.
4. A Group S-1 *fire area* used for the repair of *commercial motor vehicles* where the *fire area* exceeds 5,000 square feet (464 m^2).
5. A Group S-1 *fire area* used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet (46.4 m^2).

The following section is hereby amended to read as follows:

903.2.10 Group S-2. An *automatic sprinkler system* shall be provided throughout *buildings* containing a Group S-2 occupancy where any of the following conditions exists:

1. Where the Group S-2 *fire area* exceeds 5,000 square feet (464.5 m^2).
2. Where an enclosed parking garage in accordance with Section 406.6 is located beneath other groups.

Exception: Enclosed parking garages located beneath Group R-3 occupancies.

3. Where the fire area of an open parking garage in accordance with Section 406.5 exceeds 48,000 square feet (4,460 m^2).
4. Where a Group S-2 *fire area* is located more than three stories above *grade plane*.

The following section is hereby amended to read as follows:

903.2.11.1.3 Basements. Where any portion of a *basement* is located more than 75 feet (22,860 mm) from openings required by Section 903.2.11.1, the *basement* shall be equipped throughout with an *approved automatic sprinkler system*.

The following section is hereby amended solely by adding item #5 to read as follows:

903.3.1.2.3 Attics.

5. In *buildings* of other than Group R-3 occupancy containing *dwelling* or *sleeping units*.

Exceptions:

1. Where the *building* contains not more than 6 individual *dwelling units* or *sleeping units*, which are separated from each other by minimum 1-hour *fire barriers*.
2. Where the *building* contains not more than 12 individual *dwelling units* or *sleeping units*, which are separated into *fire areas* containing no more than 6 individual *dwellings units* (complying with number 1 above) by a minimum 2-hour *fire wall*.

The following section is hereby amended to read as follows:

907.2.11 Single- and *multiple-stations smoke alarms*. *Listed single* and *multiple station smoke alarms* complying with UL 217 shall be installed in accordance with Sections 907.2.11.1 through 907.2.11.7, NFPA 72 and the manufacturer's instructions. Where one or more sleeping rooms are added or created in existing Group R Occupancies, the entire building shall be provided with smoke detectors located and installed as required for new Group R Occupancies described herein.

Chapter 10 – Means of Egress

The following section is hereby amended and exception # 7 is added to read as follows:

1010.1.4 Floor elevation. There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2-percent slope). All exterior steps, slabs, walks, decks and patios serving as exterior door landings or exterior stairs shall be adequately and permanently secured in place by approved methods to prevent such landings or stairs from being undermined or subject to significant displacement due to improper placement of supporting backfill or due to inadequate anchoring methods.

EXCEPTIONS:

7. Exterior doors serving individual *dwelling units*, other than the main entrance door to a *dwelling unit*, may open at one intervening exterior step provided the door does not swing over the step.

The following section is hereby amended to read as follows (the exceptions are unchanged):

1011.11 Handrails. *Flights of stairways* of more than 1 riser shall have *handrails* on each side and shall comply with Section 1014. Where glass is used to provide the *handrail*, the *handrail* shall comply with Section 2407.

The following section is hereby amended to read as follows:

1031.3.2 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening, with casement windows measured when open perpendicular to the exterior wall.

The following section is hereby amended by adding Exception #2 to read as follow:

1031.5.3 Drainage. Area wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section 1805.

Exceptions:

1. A drainage system for area wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I Soils, in accordance with Section 1803.5.1.
2. A drainage system is not required for new window wells on additions to existing *dwellings* where no foundation drainage system exists.

Chapter 14 – Exterior Walls

The following section is hereby amended to read as follows:

1402.9 Flood resistance. For buildings in flood hazard areas as established in Section 1612, building construction shall comply with the requirements of the Larimer County Land Use Code.

The following section is hereby amended to read as follows:

1404.3 Vapor retarders. Vapor retarder materials shall be classified in accordance with Table R1404.3 (1). A vapor retarder may be provided on the interior side of frame walls of the class indicated in Table 1404.3 (2) including compliance with Tables 1404.3 (3) or 1404.3 (4) where applicable, or an approved design using accepted engineering practice for hygrothermal analysis shall be permitted as an alternative. Class I vapor retarders are not allowed on basement foundation walls or any concrete or masonry below grade wall. The climate zone for Larimer County is 5B.

Exception:

1. Construction where accumulation, condensation or freezing of moisture will not damage the materials.
2. A vapor retarder on the interior side of frame walls shall not be required where the assembly complies with Table 1404.3 (5).

The following table is hereby amended to read in its entirety as follows:

TABLE R1404.3 (2) VAPOR RETARDER OPTIONS

CLIMATE ZONE	VAPOR RETARDER CLASS		
	CLASS I[a]	CLASS II[a]	CLASS III
5	Permitted[b,c]	Permitted[c]	Permitted

a. A responsive vapor retarder shall be allowed on the interior side of any frame wall in all climate zones.
b. In frame walls with a Class I vapor retarder on the exterior side, use of a Class I interior vapor retarder that is not a responsive vapor retarder shall require an approved design.
c. Where a Class I or II vapor retarder is used in combination with foam plastic insulating sheathing installed as continuous insulation on the exterior side of frame walls, the continuous insulation shall comply with Table 1404.3 (4) and the Class I or II vapor retarder shall be a responsive vapor retarder.

The following section is hereby added to read as follows:

1404.15.1.4 Vinyl siding. Vinyl siding shall be installed over one-hour fire-rated assemblies listed for exterior fire exposure, in both the vertical and horizontal plane.

The following section is hereby added to read as follows:

1404.18.3 Polypropylene siding. Polypropylene siding shall be installed over one-hour fire-rated assemblies listed for exterior fire exposure, in both the vertical and horizontal plane.

Chapter 15 – Roof Assemblies and Rooftop Structures

The following section is hereby added to read as follows:

1504.7.1 Impact resistance of asphalt shingles. Asphalt shingles shall be Class 4 impact resistant, tested in accordance with UL 2218 and installed in accordance with the manufacturer's installation instructions.

Exceptions

1. When an owner wishes to replace existing asphalt shingles that are less than class 4 impact resistant with tiles of a similar color or style, and there are no class 4 impact resistance shingles available of similar color or style, the building official may approve alternate materials that are less than class 4 impact resistant, so long as the replacement shingles are the highest class of impact resistance available that match the color or style of the existing shingles. If no impact resistant materials are available, the building official may approve non-impact resistant shingles that meet all other applicable requirements of this code.
2. For repairs or additions not exceeding 100 sq. ft. to existing asphalt shingles that are less than class 4 impact resistant, the owner may use the same or similar materials regardless of impact resistance of the new shingles.

The following section is hereby deleted in its entirety and replaced with the following:

1505.1 General. The minimum fire classification of roof assemblies installed on buildings shall be Class A. Class A, B and C *roof assemblies* and *roof coverings* required to be *listed* by this section shall be tested in accordance with ASTM E108 or UL 790. In addition, *fire-retardant-treated wood roof coverings* shall be tested in accordance with ASTM D2898.

Exception: *Skylights and sloped glazing* that comply with Chapter 24 or Section 2610.

Table 1505.1 "Minimum Roof Covering Classifications for Types of Construction" is hereby deleted in its entirety.

The following section is hereby amended to read as follows:

1505.9 Rooftop mounted photovoltaic (PV) panel systems. Rooftop mounted photovoltaic (PV) panel systems shall be tested, *listed* and identified with a fire classification in accordance with UL 2703. Listed systems shall be installed in accordance with the manufacturer's installation instructions and their listing. The fire classification shall be Class A.

The following section is hereby amended to read as follows:

1507.1.2 Ice barriers. An ice barrier shall be installed for asphalt shingles, *metal roof shingles*, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles, and wood shakes. The ice barrier shall consist of not less than two layers of *underlayment* cemented together, or a self-adhering polymer modified bitumen sheet shall be used in place of normal *underlayment* and extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the *exterior wall* line of the *building*.

Exception: Detached accessory *structures* that do not contain conditioned floor area.

The following section is hereby amended to read as follows (the Exceptions are unchanged):

1512.1 General. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15 and Section 1202.2.

Chapter 16 – Structural Design

The following section is hereby amended to read as follows:

1602.1 Notations. The following notations are used in this chapter:

D = *Dead load.*
D_i = Weight of ice in accordance with Chapter 10 of ASCE 7.
E = Combined effect of horizontal and vertical earthquake induced forces as defined in Section 12.4 of ASCE 7.
F = Load due to fluids with well-defined pressures and maximum heights.
F_a = Flood load in accordance with Chapter 5 of ASCE 7.
H = Load due to lateral earth pressures, ground water pressure or pressure of bulk materials.
I_s = Importance factor for ground snow load in Equation 16-16.1
L = *Live load*.
L_r = *Roof live load.*
$p_{g(asd)}$ = *Allowable stress design* ground snow load.
p_g = Ground snow load determined in accordance with Section 1608.2.
R = Rain load.
S = Snow load.
T = Cumulative effects of self-straining load forces and effects.
V_{asd} = *Allowable stress design wind speed*, miles per hour (mph) (m/s) where applicable.
V = Basic wind speed, V, mph (m/s) determined in accordance with Section 1609.3.
V_T = Tornado speed, mph (m/s) determined from Chapter 32 of ASCE 7.
W = Load due to wind pressure.
W_i = Wind-on-ice in accordance with Chapter 10 of ASCE 7.

The following section is hereby amended solely by adding item #8 to Exception #7 to read as follows:

1603.1 General Construction

Exception: *Construction documents* shall show for *buildings* constructed in accordance with the *conventional light-frame construction* provisions of Section 2308 shall indicate the following structural design information:

1. Floor and roof dead and *live loads*.
2. Ground snow load, p_g, and *allowable stress design* ground snow load, $p_{g(asd)}$.
3. Basic *wind speed*, V, miles per hour (mph) (m/s) and *allowable stress design* wind speed, V_{asd}, as determined in accordance with Section 1609.3.1 and wind exposure.
4. *Seismic design category* and *site class*.
5. Flood design data, if located in *flood hazard areas* established in Section 1612.3.
6. Design load-bearing values of soils.
7. Rain load data.
8. Risk category.

The following section is hereby amended by amending Exception #7 to read as follows:

1603.1.3 Roof snow load data. The *ground snow load*, p_g, shall be indicated. The following additional information shall also be provided, regardless of whether snow *loads* govern the design of the roof:

1. Flat-roof snow *load*, p_f.
2. Snow exposure factor, C_e.
3. *Risk category*.
4. Thermal factor, C_t.
5. Slope factor(s), C_s.
6. Drift surcharge load(s), p_d, where the sum of p_d and p_f exceeds 30 psf (1.44 kN/m^2).
7. Width of snow drift(s), w
8. Winter wind parameter for snow drift, W_2.

The following section is deleted in its entirety and replaced with the following:

1608.2 Ground Snow Loads.

The design ground snow load (P_g) shall comply with the data contained in Colorado Design Snow Loads published by the Structural Engineers Association of Colorado (dated April 2016), multiplied by 1.6, or may be taken from Table 1608.2 (1) for Risk Category I and II buildings and structures.

For Risk Category IV buildings, the design ground snow load shall be calculated by multiplying the data from the report or table by I_s using the following equation:

Equation 16-16.1

$I_s = 1.15 \leq 1.66 - .056A \leq 1.4$

Where A = site altitude in thousands of feet

For Risk Category III buildings, the design ground snow load shall be calculated by multiplying the data from the report or table by the average of I_s and 1.0, $[(I_s + 1.0)/2]$

The design roof snow *load* values shall be determined from ASCE 7-22, Chapter 7, including all applicable factors, and loading and drifting considerations. In no case shall the final design roof snow *load* be less than a uniformly distributed load of 35 psf.

EXCEPTION: Greenhouses may take the full load reductions allowed per ASCE 7-22.

TABLE 1608.2 (1) GROUND SNOW LOADS FOR LARIMER COUNTY

Ground Elevation not exceeding (feet)	*Ground Snow Load p_g (psf)*
5,000	55
6,000	70
6,500	80
7,000	95
8,000	110
9,000	160

Ground Snow Load Table Note:

Ground snow load (p_g) may be linearly interpolated between tabulated values.

The following maps are hereby deleted in their entirety:

~~**Figure 1608.2 (1) Ground Snow Loads, p_g, For Risk Category I for the Coterminous United States (lb/ft^2)**~~
~~**Figure 1608.2 (2) Ground Snow Loads, p_g, For Risk Category II for the Coterminous United States (lb/ft^2)**~~
~~**Figure 1608.2 (3) Ground Snow Loads, p_g, For Risk Category III for the Coterminous United States (lb/ft^2)**~~

~~**Figure 1608.2 (4) Ground Snow Loads, p_g, For Risk Category IV for the Coterminous United States (lb/ft^2)**~~

The following section is hereby deleted in its entirety and replaced with the following:

1609.3 Basic Wind Speed.

The *basic wind speed*, V, in mph, for the determination of the wind loads shall comply with the Colorado Front Range Gust Map – ASCE 7-10 Compatible, published by the Structural Engineers Association of Colorado (dated November 18, 2013).

The following maps are hereby deleted in their entirety

~~**Figure 1609.3 (1) - Basic Wind Speeds, V, For Risk Category I Buildings and Other Structured**~~
~~**Figure 1609.3 (2) - Basic Wind Speeds, V, For Risk Category II Buildings and Other Structured**~~
~~**Figure 1609.3 (3) - Basic Wind Speeds, V, For Risk Category III Buildings and Other Structured**~~
~~**Figure 1609.3 (4) - Basic Wind Speeds, V, For Risk Category IV Buildings and Other Structured**~~

The following section is hereby amended to read as follows:

1609.4 Exposure category. For each wind direction considered, an exposure category that adequately reflects the characteristics of ground surface irregularities shall be determined for the *site* at which the *building* or *structure* is to be constructed. Account shall be taken of variations in ground surface roughness that arise from natural topography and vegetation as well as from constructed features. Wind exposure category shall be Exposure C, unless designated otherwise by the design professional based on site-specific conditions and approved by the *building official*.

The following section is hereby amended to read as follows:

1612.1 General. Within *flood hazard areas* as established by the Larimer County Land Use Code, all new construction of *buildings, structures* and portions of *buildings* and *structures*, including *substantial improvement* and restoration of *substantial damage* to *buildings* and *structures*, shall be designed and constructed to resist the effects of flood hazards and *flood loads*. For *buildings* that are located in more than one *flood hazard area*, the provisions associated with the most restrictive flood hazard area shall apply. Building construction within *flood hazard areas* shall comply with the requirements of the Larimer County Land Use Code.

The following sections and their subsections are hereby deleted in their entirety:

~~**1612.2 Design and construction.**~~

~~**1612.3 Establishment of flood hazard areas.**~~

~~**1612.4 Flood hazard documentation.**~~

The following section is hereby amended to read as follows:

1613.2 Determination of seismic design category. Except as noted below, *structures* shall be assigned to a *seismic design category* based on one of the following methods unless the authority having *jurisdiction* or geotechnical data determines that *Site Class* DE, E or F soils are present at the site:

1. Based on the structure *risk category* using Figure 1613.2(1).
2. Determined in accordance with ASCE 7.

Where Site Class DE, E or F soils are present, the seismic design category shall be determined in accordance with ASCE 7.

Site-specific seismic design values shall be determined from the USGS website
http://earthquake.usgs.gov/designmaps/us/application.php

For risk categories I & II, the following values may be used for design:

0.2 second spectral response acceleration S_s = 0.229g, Site Class D, Seismic Design Category B
1.0 second spectral response acceleration S_1 = 0.068g, Site Class D, Seismic Design Category B

Chapter 18 – Soils and Foundations

The following section is hereby amended to read as follows:

1809.5 Frost protection. Except where otherwise protected from frost, foundations and other permanent supports of *buildings* and *structures* shall be protected from frost by one or more of the following methods:

1. Extending a minimum of 30 inches below grade.
2. Constructing in accordance with ASCE 32.
3. Erecting on solid rock.

Exception: Free-standing *buildings* meeting all of the following conditions shall not be required to be protected:

1. Assigned to *Risk Category I* or farm stands as defined in the Larimer County Land Use Code.
2. Area of 600 square feet (56 m^2) or less for *light-frame construction* or 400 square feet (37 m^2) or less for other than *light-frame construction*.
3. Eave height of 10 feet (3,048 mm) or less.

Shallow foundations shall not bear on frozen soil unless such frozen condition is of a permanent character.

Chapter 21 – Masonry

The following section is hereby added to read as follows:

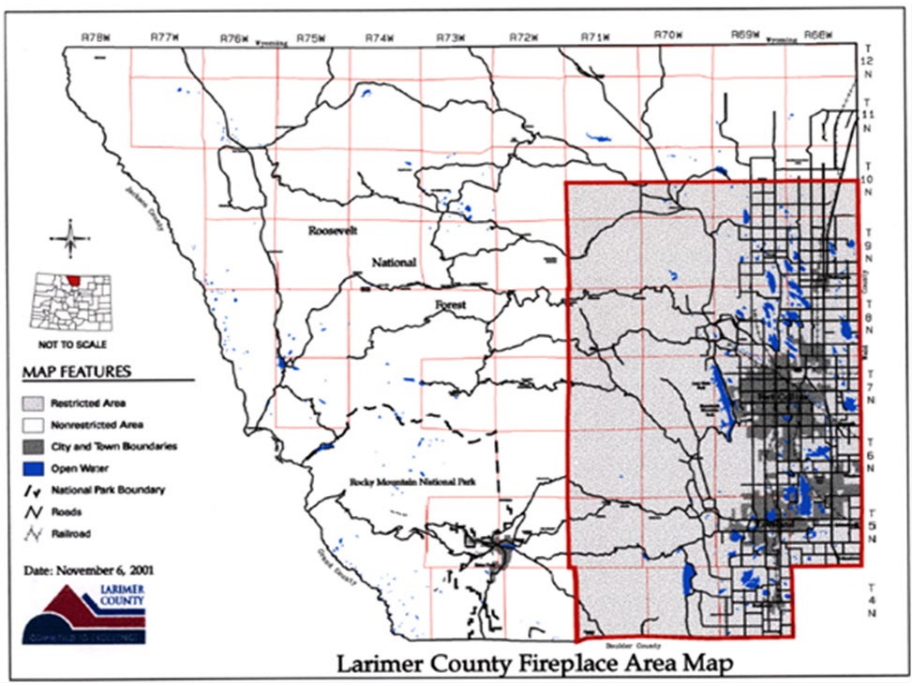
2111.15 Fireplace Restricted Area.

A. All fireplaces installed in the *Restricted Area* as defined herein and shown in Figure 2111.15 (Larimer County Fireplace Area Map) shall be one of the following:
   (i). A gas fireplace or fireplace with a gas log installed and functioning at time of final inspection;
   (ii). An electric device; or
   (iii). A fireplace that meets the most current emissions standards for wood stoves established by the Colorado Air Quality Control Commission or any other clean-burning device that is approved by the commission.

B. All fireplaces installed prior to January 1, 2002, in the Restricted Area shall be allowed to remain in use until such time as the owner voluntarily replaces it. Upon replacement, such a fireplace shall be one of the types specified in Subsection (A) (i), (ii), or (iii).

C. Within the *Non-restricted Area*, fireplaces including but not limited to masonry and factory-built fireplaces shall be allowed without being required to meet the standards in Subsection (A).

FIGURE 2111.15 Larimer County Fireplace Area Map



Chapter 27 – Electrical

The following section is hereby added to read in its entirety as follows:

SECTION 2704

2704.1 Exterior Lighting. Exterior Lighting shall comply with the Larimer County Land Use Code. New and replacement exterior luminaires shall be fully shielded so that the lighting element is not visible to an observer at any point on or beyond any property line of the lot. Luminaires shall have a cut-off with an angle not exceeding 90º from vertical. Building-mounted fixtures shall not be mounted higher than 20' in height. Exterior light fixtures shall generate at least 80 lumens per watt of energy consumed as shown on the manufacturer's specifications. Exterior lighting controls shall comply with International Energy Conservation Code Section C405.2.7.

Chapter 29 – Plumbing Systems

The following section is hereby amended to read as follows:

Table P2902.1 footnote "e" (no other changes to table)

e. For business and mercantile classifications with an occupant load of 15 or fewer and storage classifications without plumbing fixtures, a service sink shall not be required.

The following section is hereby amended to read as follows:

2902.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each gender.

Exceptions:

1. Separate toilet facilities shall not be required for *dwelling units* and *sleeping units*.
2. Separate toilet facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of 25 or fewer.
3. Separate toilet facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
4. Separate toilet facilities shall not be required to be designated by gender where single-user toilet rooms are provided in accordance with Section 2902.1.2.
5. Separate toilet facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by all persons regardless of gender, and privacy is provided for water closets in accordance with Section 405.3.4 of the International Plumbing Code, for urinals in accordance with Section 405.3.5 of the International Plumbing Code, and the following
6. In all–gender multi-user toilet facilities, urinals shall be located in separate compartments. The bottom edge of toilet and urinal compartment partition walls shall begin a maximum of four inches above the floor, with the top edge including the door a minimum of 96" above the floor or within 6" of the ceiling, whichever is less. Partitions shall prevent visual observation from outside the compartment for the full height of the door on both sides. Where full height compartment walls and doors are used instead of partitions, each compartment shall comply with the Building, Mechanical and Electrical Codes for lighting, ventilation, exhaust, sprinklers and alarms.

The following section is hereby amended solely to add Exception #3 to read as follows:

P2902.3 Employee and public toilet facilities.

Exception:

3. Farm stands as defined in the Larimer County Land Use Code having a public access area not greater than 600 square feet (56 m^2).

The following section is hereby amended to read as follows:

2902.6 Small occupancies. Drinking fountains shall not be required for an *occupant load* of 25 or fewer.

Chapter 31 – Special Construction

The following section is hereby amended to read as follows:

3108.1 General. Towers shall be designed and constructed in accordance with the provisions of TIA 222 except that a ½" (12.7 mm) atmospheric ice load (D_i) shall be used in their design. Towers shall be designed for seismic loads; exceptions related to seismic design listed in Section 2.7.3 of TIA 222 shall not apply. In Section 2.6.6.2 of TIA 222, the horizontal extent of Topographic Category 2, escarpments, shall be 16 times the height of the escarpment.

Exception: Single free-standing poles used to support antennas not greater than 75 feet (22 860 mm), measured from the top of the pole to grade, shall not be required to be noncombustible.

Appendices

The following appendix chapters are hereby adopted in their entirety:

Appendix C. Group U - Agricultural Buildings

Appendix E. Supplementary Accessibility Requirements

The following appendix chapter is hereby adopted as amended:

Appendix I. Patio Covers

The following section is hereby amended to read as follows:

I105.2 Footings.

In mobile home communities, a *patio cover* that is structurally independent of the manufactured home shall be permitted to be supported on a concrete slab on grade without footings, provided that the slab conforms to the provisions of Chapter 19 and is not less than 3 1/2 inches (89 mm) thick, and the columns do not support loads in excess of 750 pounds (3.34 kN) per column.

The following appendix chapter is hereby adopted as amended:

Appendix K. Administrative Provisions.

The following section is hereby amended to read as follows:

K106.1 General. The *building official*, upon notification, shall make the inspections set forth in this section and any others deemed necessary to verify that all work has been satisfactorily completed.

The following section is hereby added to read as follows:

K106.4 Final. The final inspection shall be made after all electrical work required by the *permit* is completed.

The following section is hereby renumbered to read as follows

K106.5 Contractors' responsibilities. It shall be the responsibility of every contractor who enters into contracts for the installation or *repair* of electrical systems for which a *permit* is required to comply with adopted state and local rules and regulations concerning licensing.

The following section is hereby amended to read as follows:

K111.1 Adoption. Electrical systems and equipment shall be designed, constructed and installed in accordance with NFPA 70 as applicable, except as otherwise provided in this code. **Electrical installations shall also comply with the Colorado Model Electric Ready and Solar Ready Code as adopted and amended by Larimer County.**

The following appendix chapter is hereby adopted in its entirety:

Appendix P. Sleeping Lofts.

2024 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)

IECC - COMMERCIAL PROVISIONS
Chapter 1 – Administration

The following section is hereby amended to read as follows:

C101.1 Title. This code shall be known as the Energy Conservation Code of Larimer County and shall be cited as such. It is referred to herein as "this code."

The following section is hereby amended to read as follows:

C102.2 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings and structures under the scope of this code shall also comply with the Colorado Model Electric-Ready and Solar-Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code, the Colorado Wildfire Resiliency Code, and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

C103.1 Creation of enforcement agency.

The Building Division is hereby created and the official in charge thereof shall be known as the authority having jurisdiction (AHJ). The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

Chapter 2 – Definitions

The following section is hereby amended by adding a definition in alphabetical order to read as follows:

SECTION C202 GENERAL DEFINITIONS

INTERNATIONAL FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

Chapter 3 – General Requirements

The following section is hereby added to read as follows:

C302.2 Thermal design parameters. The following thermal design parameters shall be used:

a) Larimer County is in Climate Zone 5B.
b) Outdoor winter design dry-bulb (4^0F on Front Range, 0^oF in Estes Park and mountains),
c) Indoor winter design dry-bulb (72^0F),
d) Outdoor summer design dry-bulb (91^0F),
e) Indoor summer design dry-bulb (75^0F),
f) Summer design wet-bulb (62^0F),
g) Degree Days Heating (6368)
h) Degree Days Cooling (479)

Chapter 4 – Commercial Energy Efficiency

The following section is hereby deleted:

~~**C402.1.2.1.8 Mechanical equipment penetrations.**~~

The footnotes to Table C402.1.2 are hereby amended to read as follows:

TABLE C402.1.2 - OPAQUE BUILDING THERMAL ENVELOPE ASSEMBLY MAXIMUM REQUIREMENTS, U-FACTOR METHOD [a,b]

For SI: 1 pound per square foot = 4.88 kg/m^2, 1 pound per cubic foot = 16 kg/m^3.

a. Where assembly U-factors, C-factors and F-factors are established in ANSI/ASHRAE/IESNA 90.1 Appendix A, such opaque assemblies shall be a compliance alternative where those values meet the criteria of this table, and provided that the construction, excluding the cladding system on walls, complies with the appropriate construction details from ANSI/ASHRAE/ISNEA 90.1 Appendix A.
b. Where U-factors have been established by testing in accordance with ASTM C1363, such opaque assemblies shall be a compliance alternative where those values meet the criteria of this table. The R-value of continuous insulation shall be permitted to be added to or subtracted from the original tested design.
c. Where heated slabs are below grade, below-grade walls shall comply with the U-factor requirements for above-grade mass walls.
d. "Mass floors" shall be in accordance with Section C402.1.3.4.
e. These C-, F- and U-factors are based on assemblies that are not required to contain insulation.
f. "Mass walls" shall be in accordance with Section C402.1.3.4.
g. Swinging door U-factors shall be determined in accordance with NFRC-100.

h. Garage doors having a single row of fenestration shall have an assembly U-factor less than or equal to 0.44, provided that the fenestration area is not less than 14 percent and not more than 25 percent of the total door area.
i. Class 1 vapor retarders shall not be installed on the interior of framed walls where exterior ci value is less than R-7.5.

The footnotes to Table C402.1.3 are hereby amended to read as follows:

TABLE C402.1.3 - OPAQUE BUILDING THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS, R-VALUE METHOD[a]

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 4.88 kg/m^2, 1 pound per cubic foot = 16 kg/m^3.
ci = Continuous Insulation, NR = No Requirement, LS = Liner System.

a. Assembly descriptions can be found in ANSI/ASHRAE/IESNA 90.1 Appendix A.
b. Where using R-value compliance method, a thermal spacer block shall be provided, otherwise use the U-factor compliance method in Table C402.1.4.
c. R-5.7ci is allowed to be substituted with concrete block walls complying with ASTM C90, ungrouted or partially grouted not less than 32 inches on center vertically and not less than 48 inches on center horizontally, with ungrouted cores filled with materials having a maximum thermal conductivity of 0.44 Btu-in/h-f^2 °F.
d. Where heated slabs are below grade, below-grade walls shall comply with the R-value requirements for above-grade mass walls.
e. "Mass floors" shall be in accordance with Section C402.1.3.4.
f. "Mass walls" shall be in accordance with Section C402.1.3.4..
g. The first value is for perimeter insulation and the second value is for full, under-slab insulation. Perimeter insulation and full slab insulation components shall be installed in accordance with Section C402.2.4.. Vertical insulation located below grade shall be extended the distance provided in the table or to top of footing or bottom of monolithic slab, whichever is greatest.
h. The first value is cavity insulation; the second value is continuous insulation. Therefore, "R-0 + R-12ci" means R-12 continuous insulation and no cavity insulation; "R-13 + R-3.8ci" means R-13 cavity insulation and R-3.8 continuous insulation; "R-20" means R-20 cavity insulation and no continuous insulation. R-13, R-20 and R-27 cavity insulation, as used in this table, apply to a nominal 4-inch, 6-inch and 8-inch-deep wood or cold-formed steel stud cavities, respectively.
i. Where the required R-value in Table C402.1.3 is met by using continuous insulation such that cavity insulation is not required, the R-value is applicable to any wall framing spacing
j. Class 1 vapor retarders shall not be installed on the interior of framed walls where exterior ci value is less than R-7.5.

The following section is hereby amended to read as follows:

C402.2.4 Slabs-on-grade. Where installed, the perimeter insulation shall be placed on the outside of the foundation or on the inside of the foundation wall. For installations complying with Table C402.1.3, the perimeter insulation shall extend downward from the top of the slab for the minimum distance shown in the table or to the top of the footing, whichever is greater, or downward to not less than the bottom of the slab and then horizontally to the interior or exterior for the total distance shown in the table. Where installed, full slab insulation shall be continuous under the entire area of the slab-on-grade floor, except at structural column locations and service penetrations. Insulation required at the *heated slab* perimeter shall not be required to extend below the bottom of the heated slab and shall be continuous with the full slab insulation.

Exception: Where the slab-on-grade floor is greater than 24 inches (610 mm) below the finished exterior grade, perimeter insulation is not required.

The following section is hereby amended to read as follows:

C402.6.2 Air leakage compliance. Air leakage of the building thermal envelope shall be tested by an approved third party in accordance with Section C402.6.2.1. The measured air leakage shall not be greater than 0.35 cubic feet per minute per square foot (1.8 L/s x m^2) of the building thermal envelope area at a pressure differential of 0.3 inch water gauge (75 Pa) with the calculated building thermal envelope surface area being the sum of the above- and below-grade building thermal envelope.

Exceptions:

1. Where the measured air leakage rate is greater than 0.35 cfm/ft^2 (1.8 L/s × m^2) but is not greater than 0.45 cfm/ft^2 (2.3 L/s × m^2), the approved third party shall perform a diagnostic evaluation using a smoke tracer or infrared imaging. The evaluation shall be conducted while the building is pressurized or depressurized along with a visual inspection of the air barrier in accordance with ASTM E1186. All identified leaks shall be sealed where such sealing can be made without damaging existing building components. A report specifying the corrective actions taken to seal leaks shall be deemed to establish compliance with the requirements of this section where submitted to the code official and the building owner. Where the measured air leakage rate is greater than 0.45 cfm/ft^2 (2.3 L/s × m^2), corrective actions must be made to the building and an additional test completed for which the results are 0.45 cfm/ft^2 (2.3 L/s × m^2) or less.
2. As an alternative, buildings or portions of buildings containing Group I-1 and R-2 occupancies shall be permitted to be tested by an approved third party in accordance with Section C402.6.2.2. The reported air leakage of the building thermal envelope shall not be greater than 0.27 cfm/ft^2(1.4 L/s × m^2) of the testing unit enclosure area at a pressure differential of 0.2 inch water gauge (50 Pa).
3. The building official may waive the air leakage testing requirement for buildings or portions thereof that are not fully enclosed and fully conditioned, such as warehouses and repair garages with overhead doors that are frequently open while in operation. Fully enclosed and conditioned portions of such buildings shall be tested.

The following section is hereby amended to read as follows:

C402.6.2.1. Whole building test method and reporting. The *building thermal envelope* shall be tested by an approved third party in accordance with ASTM E3158 or the most current version of the City of Fort Collins Building Air Leakage Test Protocol for commercial buildings. A report that includes the tested surface area, floor area, air by volume, stories above grade, and air leakage rates shall be submitted to the code official and the building owner.

Exceptions:

1. For *buildings* less than 10,000 square feet (929 m^2), the entire *building thermal envelope* shall be permitted to be tested in accordance with ASTM E779, ASTM E3158, ASTM E1827 or an equivalent *approved* method.
2. For *buildings* greater than 50,000 square feet (4645 m^2), portions of the *building* shall be permitted to be tested and the measured *air leakage* shall be area weighted by the surface areas of the *building thermal envelope* in each portion. The weighted-average tested *air leakage* shall not be greater than the whole building *air leakage* limit. The following portions of the *building* shall be tested:
    2.1. The entire *building thermal envelope* area of stories that have any *conditioned spaces* directly under a roof.
    2.2. The entire *building thermal envelope* area of stories that have a *building entrance*, have a floor over unconditioned space, have a loading dock or that are below grade.
    2.3. Representative above-grade portions of the building totaling not less than 25 percent of the wall area enclosing the remaining *conditioned space*.

The following section is hereby amended to read as follows:

C402.6.2.2. Dwelling and sleeping unit enclosure method and reporting. The building thermal envelope shall be tested for air leakage in accordance with ASTM E779, ANSI/RESNET/ICC 380, ASTM E1827 or the City of Fort Collins Building Code Protocol for New Multifamily Building Air Tightness Testing. Where multiple dwelling units or sleeping units or other spaces are contained within one building thermal envelope, each shall be considered an individual testing unit, and the building air leakage shall be the weighted average of all tested unit results, weighted by each testing unit enclosure area. Units shall be tested without simultaneously testing adjacent units and shall be separately tested as follows:

1. Where buildings have less than eight total dwelling or sleeping units, each testing unit shall be tested.
2. Where buildings have eight or more dwelling or sleeping units, the greater of seven units or 20 percent of the units in the building shall be tested, including a top floor unit, a middle floor unit, a ground floor unit and a unit with the largest testing unit enclosure area. For each tested unit that exceeds the maximum air leakage rate, an additional three units shall be tested, including a mixture of testing unit types and locations.
3. Enclosed spaces with not less than one exterior wall in the building thermal envelope shall be tested in accordance with Section C402.6.2.1.

Exception: Corridors, stairwells, and enclosed spaces having a conditioned floor area not greater than 1,500 square feet (139 m^2) shall be permitted to comply with Section C402.6.2.3 and either Section C402.6.2.3.1 or Section C402.6.2.3.2.

C402.6.2.3 Building thermal envelope design and construction verification criteria.

Where Section C402.6.2.1 and C402.6.2.2 are not applicable the installation of the continuous air barrier shall be verified by the code official and an approved air leaking testing agency in accordance with the following:

1. A review of the construction documents and other supporting data shall be conducted to assess compliance with the requirements in Section C402.6.1.
2. Inspection of continuous air barrier components and assemblies shall be conducted during construction to verify compliance with the requirements of Sections C402.6.2.3.1 and C402.6.2.3.2. The air barrier shall be provided with access for inspection and repair.
3. A final air barrier and air sealing inspection report shall be provided for inspections completed by the approved agency. The inspection report shall be provided to the building owner or owner's authorized agent and the code official at the time of the framing or insulation inspection. The report shall identify deficiencies found during inspection and details of corrective measures taken.

The following sections and all its subsections are hereby deleted in their entirety:

~~**C405.15 Renewable energy systems.**~~

The following section is hereby amended to read as follows:

C408.2.4.1 Acceptance of report. Buildings, or portions thereof, shall not be considered as acceptable for a final inspection pursuant to Section C107.2.6 until the code official has received written notification from the building owner or owner's authorized agent that they have received the Preliminary Commissioning Report.

The following section is hereby amended to read as follows:

C408.2.5 Documentation requirements. The *construction documents* shall specify that the documents described in this section be provided to the building official prior to issuance of the *certificate of occupancy*.

The following section is hereby deleted in its entirety as follows:

~~**C408.2.5.2 Final commissioning report.**~~

Chapter 5 – Existing Buildings

The following section is hereby amended to read as follows:

R501.2 Compliance. Additions, alterations, repairs or changes of occupancy to, or relocation of, an existing building, building system or portion thereof shall comply with Section R502, R503, R504 or R505, respectively, in this code and the provisions for alterations, repairs, additions and changes of occupancy or relocation, respectively, in the International Building Code, International Existing Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Property Maintenance Code, International Residential Code and NFPA 70, as applicable. Changes where unconditioned space is changed to conditioned space shall comply with Section R501.6.

The following section is hereby deleted:

~~**C502.3.8 Renewable energy systems.**~~

IECC - RESIDENTIAL PROVISIONS

Chapter 1 – Administration

The following section is hereby amended to read as follows:

R101.1 Title. This code shall be known as the Energy Conservation Code of Larimer County and shall be cited as such. It is referred to herein as "this code."

The following section is hereby amended to read as follows:

R101.4.1 Compliance materials. The code official shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this code. A REScheck compliance certification verifying the home meets or exceeds 2024 International Energy Conservation Code requirements shall be deemed to satisfy the requirements of this code.

The following section is hereby amended to read as follows:

R102.2 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings and structures under the scope of this code shall also comply with the Colorado Model Electric-Ready and Solar-Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code, the Colorado Wildfire Resiliency Code, and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

R103.1 Creation of enforcement agency.

The Building Division is hereby created and the official in charge thereof shall be known as the authority having jurisdiction (AHJ). The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

Chapter 2 – Definitions

The following section is hereby amended by adding a definition in alphabetical order to read as follows:

SECTION R202 GENERAL DEFINITIONS

INTERNATIONAL FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

Chapter 3 – General Requirements

The following section is hereby added to read as follows:

R302.2 Thermal design parameters. The following thermal design parameters shall be used:

a) Larimer County is in Climate Zone 5B.
b) Outdoor winter design dry-bulb (4^0F on Front Range, 0^oF in Estes Park and mountains),
c) Indoor winter design dry-bulb (72^0F),
d) Outdoor summer design dry-bulb (91^0F),
e) Indoor summer design dry-bulb (75^0F),
f) Summer design wet-bulb (62^0F),
g) 6368 Degree Days Heating, and
h) 479 Degree Days Cooling.

Chapter 4 – Residential Energy Efficiency

The following section is hereby amended to read as follows:

R402.1 General. The building thermal envelope shall comply with the requirements of one of the following:

1. Sections R402.1.1 through R402.1.4 and Section R402.1.6
2. Sections R402.1.1, R402.1.5 and R402.1.6

Exceptions:

1. The following low-energy buildings, or portions thereof, separated from the remainder of the building by *building thermal envelope* assemblies complying with this section, shall be exempt from the *building thermal envelope* provisions of Section R402.
   1.1 Those with a peak design rate of energy usage less than 3.4 Btu/h × ft^2 (10.7 W/m^2) or 1.0 watt/ft^2 of floor area for space-conditioning purposes.
   1.2 Those that do not contain conditioned space.
2. Log homes designed in accordance with ICC 400.
3. Greenhouses

4. Accessory, utility or agricultural buildings that comply with Section 4.1, 4.2 or 4.3:

4.1 Heated or cooled in their interior for short periods of time and switched with a timer of two hours or less.
4.2 Not heated above 50^0 F.
4.3 Buildings that meet or exceed all the following criteria:

a) They contain no *habitable space*.
b) Walls are insulated to a minimum of R-13.
c) The roof/ceiling is insulated to a minimum of R-24.
d) Windows and glazing in doors have a maximum U-factor of 0.40 and in total do not exceed 10% of the floor area.
e) Doors have a minimum R-3 value and are sealed to prevent infiltration.
f) Any plumbing installed therein is protected from freezing by an *approved* method.

The following section is hereby amended to read as follows:

TABLE R402.1.2 MAXIMUM ASSEMBLY U-FACTORS[a] AND FENESTRATION REQUIREMENTS

Vertical Fenestration U-Factor	Skylight U-Factor	Glazed Vertical Fenestration SHGC	Skylight SHGC	Ceiling U-Factor	Insulation Entirely Above Roof Deck	Wood Framed Wall U-Factor[c]	Mass Wall U-Factor[b]	Floor U-Factor	Basement Wall U-Factor	Unheated Slab F-Factor[e]	Heated Slab F-Factor[e]	Crawl Space Wall U-Factor
0.30[d]	0.50	0.40	0.40	0.026	.0032	0.045	0.082	0.033	0.050	0.51	0.66	0.055

For SI: 1 foot = 304.8 mm

a. Nonfenestration U-factors and F-factors shall be obtained from measurement, calculation or an approved source.
b. Mass walls shall be in accordance with Section R402.2.6. Where more than half the insulation is on the interior, the mass wall U-factors shall not exceed 0.065 in Climate Zone 5.
c. Class 1 vapor retarders shall not be installed on the interior of framed walls where exterior ci value is less than R-7.5
d. A maximum U-factor of 0.30 shall apply in Climate Zone 5 to vertical fenestration products installed in buildings located either:
   1. Above 4,000 feet in elevation above sea level, or
   2. In windborne debris regions where protection of openings is required by Section R301.2.1.2.
e. F-factors for slabs shall correspond to the R-values of Table R402.1.3 and the installation conditions of Section R402.2.10.1.

The following section is hereby amended to read as follows:

TABLE R402.1.3 INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT [a]

Vertical Fenestration U-Factor	Skylight U-Factor	Glazed Vertical Fenestration SHGC	Skylight SHGC	Ceiling R-Value	Insulation Entirely Above Roof Deck	Wood Framed Wall R-Value[e]	Mass Wall R-Value[f]	Floor R-Value[h]	Basement Wall R-Value[b,e]	Unheated Slab R-Value & Depth[c]	Heated Slab R-Value & Depth[c]	Crawl Space Wall R-Value[b, e]
0.30[g]	.50	0.40	0.40	R-49	30 ci	30 or 20&5ci or 13&10ci or 0&20ci	13/17	30 or 19+7.5 ci or 20 ci	15 ci or 19 or 13&5ci	10ci, 30 in.	R-10ci, 30 in. and R-5 full slab	15ci or 19 or 13&5ci

For SI: 1 foot = 304.8 mm. NR = Not Required. ci = Continuous Insulation

a. R-values are minimums. U-factors and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed R-value of the insulation shall be not less than the R-value specified in the table.
b. “5ci or 13” means R-5 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "10ci or 13" means R-10 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "15ci or 19 or 13&5ci" means R-15 continuous insulation (ci) on the interior or exterior surface of the wall; or R-19 cavity insulation on the interior side of the wall; or R-13 cavity insulation on the interior of the wall in addition to R-5 continuous insulation on the interior or exterior surface of the wall.
c. Slab insulation shall be installed in accordance with Section N1102.2.10.1. Depth shall be 30” (762 mm), to top of footings or to bottom of monolithic slab, whichever is greatest.
d. Class 1 vapor retarders shall not be installed on the interior of framed walls where exterior ci value is less than R-7.5
e. The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, “13&5ci” means R-13 cavity insulation plus R-5 continuous insulation.
f. Mass walls shall be in accordance with Section N1102.2.6. The second R-value applies where more than half of the insulation is on the interior of the mass wall.
g. A maximum U-factor of 0.30 shall apply in Climate Zone 5 to vertical fenestration products installed in buildings located either:
   1. Above 4,000 feet in elevation.
   2. In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the International Residential Code.
h. "30 or 19+7.5ci or 20ci" means R-30 cavity insulation alone or R-19 cavity insulation with R-7.5 continuous insulation or R-20 continuous insulation alone.

The following section is hereby amended to read as follows:

R402.1.6 Rooms containing fuel-burning appliances. In new construction, where open *combustion air ducts* provide *combustion air* to open *combustion* fuel-burning *appliances*, the *appliances* and *combustion air* opening shall be located outside the *building thermal envelope* or enclosed in a room that is isolated from inside the *building thermal envelope*. Such rooms shall be sealed and insulated in accordance with the *building thermal envelope* requirements of Table R402.1.3, where the walls, floors and ceilings shall meet a minimum of the *basement wall R-value requirement*. The door into the room shall be fully gasketed and any water lines and *ducts* in the room insulated in accordance with Section R403. The *combustion air duct* shall be insulated where it passes through *conditioned space* to an *R-value* of not less than R-8.

Exceptions:

1. Direct vent *appliances* with both intake and exhaust pipes installed continuous to the outside.
2. *Fireplaces* and stoves complying with Sections R402.5.2 and Section R1006 of the International Residential Code.
3. Rooms containing *combustion air ducts* not exceeding 4" (102 mm) in diameter.

The following section is hereby amended to read as follows:

R402.2.5 Access hatches and doors. Access hatches and doors from conditioned to unconditioned spaces such as attics and crawl spaces shall be insulated to the same R-value required by Table R402.1.3 for the wall or ceiling in which they are installed.

Exceptions:

1. Vertical attic entries providing access from conditioned spaces to unconditioned spaces are not required to be a swinging door shall be less than or equal to U-0.10 or have an average insulation R-value of R-10 or greater. If foam plastic insulation is used it shall comply with IRC section R303.5.3.

The reduction shall not apply to the total UA alternative in Section R402.1.5.

The following section is hereby amended to read as follows:

R402.2.9.1 Basement wall insulation installation.

Where basement walls are insulated, the insulation shall be installed from the top of the basement wall down to the basement floor or in accordance with the proposed design or the rated design, as applicable.

The following section is hereby amended to read as follows:

R402.2.11.1 Crawl space wall insulation installation. Where installed, *crawl space wall* insulation shall be secured to the wall and extend downward from the sill plate to not less than the top of the foundation wall footing.

Exposed earth in *crawl space* foundations shall be covered with a continuous Class I vapor retarder in accordance with the *International Building Code* or *International Residential Code*, as applicable. Joints of the vapor retarder shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder shall extend not less than 6 inches (153 mm) up the stem walls and shall be attached to the stem walls and footings pads.

The following section is hereby amended to read as follows:

R402.2.13 Sunroom and heated garage insulation.

Sunrooms enclosing *conditioned space* and heated garages shall meet the insulation requirements of this code.

Exception: For *sunrooms* and heated garages provided with *thermal isolation*, and enclosing *conditioned space*, the following exceptions to the insulation requirements of this code shall apply:

1. The minimum ceiling insulation *R-values* shall be R-24.
2. The minimum wall insulation *R-value* shall be R-13. Walls separating a *sunroom* or heated garage with *thermal isolation* from conditioned space shall comply with the *building thermal envelope requirements* of this code.

The following section is hereby amended to read as follows:

R402.5.1.1. Building envelope performance verification. The components of the building thermal envelope as indicated in Table R402.5.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria indicated in Table R402.5.1.1, as applicable to the method of construction. An approved third party shall inspect all components and verify compliance in accordance with the following:

1. A review of the construction documents and other supporting data shall be conducted to assess compliance with the requirements in this section.
2. Inspection of continuous air barrier components and assemblies shall be conducted during construction while the air barrier is still accessible for inspection and repair to verify compliance with the requirements of this section and Table N1102.5.1.1.
3. An air barrier and air sealing inspection report shall be provided for inspections completed by the *approved* air leakage testing agency. The air barrier and air sealing inspection report shall be provided to the building owner or owner's authorized agent and the code official at the time of the framing or insulation inspection. The report shall identify deficiencies found during the review of the construction documents and inspection and details of corrective measures taken.

The following section is hereby amended by adding Exceptions #2 and #3 to read as follows:

R402.5.1.2 Air Leakage Testing. The building or each dwelling unit or sleeping unit in the building shall be tested for air leakage. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779, ASTM E1827 or ASTM E3158 and reported at a pressure differential of 0.2 inch water gauge (50 Pascals). Testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope have been sealed.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.

2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, where installed at the time of the test, shall be open.
4. Exterior or interior terminations for continuous ventilation systems shall be sealed.
5. Heating and cooling systems, where installed at the time of the test, shall be turned off.
6. Supply and return registers, where installed at the time of the test, shall be fully open.

Exceptions:

1. For heated, attached private garages and heated, detached private garages accessory to one- and two-family dwellings and townhouses not more than three stories above grade plane in height, building envelope tightness and insulation installation shall be considered acceptable where the items in Table N1102.5.1.1, applicable to the method of construction, are field verified. An approved third party independent from the installer shall inspect both air barrier and insulation installation criteria. Heated, attached private garage space and heated, detached private garage space shall be thermally isolated from all other conditioned spaces in accordance with Sections N1102.2.13 and N1102.4.5, as applicable.
2. Where tested in accordance with Section R402.5.1.2.1, testing of each dwelling unit or sleeping unit is not required.
3. Cabins without a primary heat source are not required to be tested for air leakage.

The following section is hereby amended to read as follows:
R402.6 Maximum fenestration U-factor and SHGC.

The area-weighted average maximum fenestration U-factor permitted using tradeoffs from Section R402.1.5, R405 or R406 shall be 0.48 in Climate Zones 4 and 5 for vertical fenestration, and 0.75 in Climate Zones 4 through 8 for skylights.

Exception: The maximum U-factor and SHGC for fenestration shall not be required in storm shelters complying with ICC 500.

The following section is hereby deleted in its entirety:

~~**R403.3.5 Ductwork buried within ceiling insulation**~~

The following section is hereby amended to read as follows:

R403.7 Equipment sizing and efficiency rating. Heating and cooling *equipment* shall be sized in accordance with ACCA Manual S based on *building* loads calculated in accordance with ACCA Manual J or other *approved* heating and cooling calculation methodologies, such that the total sensible capacity of the cooling equipment does not exceed the total sensible load by more than 25% for cooling-only applications, or by more than 40% for heating applications, using the Manual J Design Criteria in Table 301.2. All ducted combination heating and cooling systems shall be sized using cooling loads. New or replacement heating and cooling *equipment* shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the *equipment* is installed.

The following section is hereby deleted in its entirety:

~~**R404.4 Renewable energy certificate (REC) documentation**~~

2024 INTERNATIONAL EXISTING BUILDING CODE (IEBC)

Chapter 1 – Administration

The following section is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the *Existing Building Code* of Larimer County, hereinafter referred to as "this code."

The following section is hereby amended to read as follows:

101.2 Scope. The provisions of this code shall apply to the repair, alteration, change of occupancy, addition to and relocation of existing buildings.

Exception: Detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, *short-term rentals*, resort lodge cottages with ten or less occupants, and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the *International Residential Code*.

The following section is hereby amended to read as follows:

102.2 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings and structures under the scope of this code shall also comply with the Colorado Wildfire Resiliency Code, the Colorado Model Electric Ready and Solar Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code, and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

102.4 Referenced codes and standards. The codes as adopted and amended by Larimer County and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.4.1 and 102.4.2.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing shall govern.

The following section is hereby amended to read as follows:

103.1. Creation of agency. The Building Division is hereby created, and the official in charge thereof shall be known as the *code official,* otherwise known as the Building Official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

The following section is hereby amended in its entirety to read as follows:

104.2.4.1 Flood Hazard areas. For *existing buildings* located in *flood hazard areas* established by the Larimer County Land Use Code, for which *repairs, alterations* and *additions* constitute *substantial improvement,* the County Engineer shall not grant modifications to provisions related to flood resistance without the granting of a variance to such provisions by the Floodplain Review Board.

The following section is hereby amended in its entirety to read as follows:

104.3.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas. For applications for reconstruction, rehabilitation, repair, alteration, addition or other improvement of existing buildings or structures located in flood hazard areas, the County Engineer shall determine where the proposed work constitutes substantial improvement or repair of substantial damage. Where the County Engineer determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by this code, the County Engineer shall require the building to meet the requirements of the Larimer County Land Use Code, as applicable.

The following sections are hereby deleted in their entirety:

~~**105.1.1 Annual permit**~~

~~**105.1.2 Annual permit records**~~

The following section is hereby amended to read as follows:

105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. Sidewalks and driveways not more than 30 inches (762 mm) above grade and not over any basement or story below and that are not part of an accessible route.
2. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.

3. Temporary motion picture, television, and theater stage sets and scenery.
4. Shade cloth structures and maximum 6-mil single layer poly-roofed structures constructed for nursery or agricultural purposes, with no entry by the general public, and not including service systems.
5. Window awnings supported by an exterior wall that do not project more than 54 inches (1,372 mm) from the exterior wall and do not require additional support, storm windows, storm doors, and rain gutter installation.
6. Nonfixed and movable cases, counters and partitions not over 5 feet 9 inches (1753 mm) in height.
7. Swings and other playground equipment accessory to detached one- and two-family dwellings, including not more than one elevated playhouse per lot, designed and used exclusively for play, not exceeding 64 square feet (5.9 m2) of floor area nor 8 feet (2.44 m) in height as measured from the floor to the highest point of such structure.

Electrical:

1. Repairs and maintenance: Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.
2. Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply, the installations of towers and antennas.
3. Temporary testing systems: A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.
8. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of plumbing fixtures, provided that such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

The following section is hereby amended to read as follows:

105.3.2 Time limitation of application. An application for a *permit* for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a *permit* has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

The following section is hereby amended to read as follows:

106.3.1 Approval of construction documents. Where the *code official* issues a *permit*, the *construction documents* shall be *approved*, in writing, electronically or by stamp, indicating the approved permit number. One set of *construction documents* so reviewed shall be retained by the *code official*. The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the *code official* or a duly authorized representative.

The following section is hereby added to read as follows:

108.7 Re-inspection fees. A re-inspection fee may be assessed for each inspection or re-inspection when access to the work is not provided on the date for which inspection is requested, a readily visible address is not posted, the inspection record card is not posted or otherwise available on site, the approved plans are not readily available in a visible location for the inspector, such portion of work for which inspection is called for is not complete, corrections called for are not made or already covered, work deviates from plans approved by the *building official*, or for other good and sufficient cause as determined by the *building official*. To obtain a re-inspection, the applicant shall pay the re-inspection fee in accordance with the adopted Larimer County fee schedule. When re-inspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

The following section is hereby amended to read as follows:

109.3.4 Frame inspection. Framing inspections shall be made after the *roof deck* or sheathing, all framing, *fire-blocking* and bracing are in place and pipes, chimneys, and vents, to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are complete.

The following section is hereby amended to read as follows:

110.1 Change of occupancy. A *building* or *structure* shall not be used or occupied in whole or in part, and a *change of occupancy* of a *building* or *structure* or portion thereof shall not be made, until the *building official* has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the *jurisdiction*. Certificates presuming to give authority to violate or cancel the provisions of this code or other ordinances of the *jurisdiction* shall not be valid.

Exceptions:

1. Certificates of occupancy are not required for work exempt from *permits* in accordance with Section 105.2.
2. Shell, agricultural and accessory *buildings* and miscellaneous permits shall not receive certificates of occupancy; a letter of completion will be issued upon request.

The following section is hereby amended to read as follows:

110.2 Certificate issued. After the *code 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 department, the *code official* shall issue a certificate of occupancy that may contain the following:

1. The *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 for the occupancy and division of occupancy and the use for which the proposed occupancy is classified. .
6. The name of the *code official*.
7. The edition of the code under which the *permit* was issued.
8. The use and occupancy, in accordance with the provisions of the *International Building Code*.
9. The type of construction as defined in the *International Building Code*.
10. The design occupant load and any impact the *alteration* has on the design occupant load of the area not within the scope of the work.
11. Where an *automatic sprinkler system* is provided, and whether an automatic sprinkler system is required.
12. Any special stipulations and conditions of the building *permit*.

The following section is hereby amended to read as follows:

110.3 Temporary occupancy. The *code official* is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the *permit*, provided that such portion or portions shall be occupied safely. A Temporary Certificate of Occupancy (TCO) shall be valid for 180 days and may be extended by the *code official*. The fee for each TCO shall be in accordance with the fee schedule established by Larimer County**.**

***The following section is hereby amended to read as follows*:**

112.4 Administration. To appeal a written determination of the *code official* to the Board of Appeals, a written appeal must be received by the *code official* within thirty (30) days of the date of the determination being appealed. The appellant shall, at the time of making such appeal, pay to the Larimer County Building Division an appeal fee as specified in the Larimer County fee schedule. The *code official* shall send written notice of hearing to all parties concerned at least fourteen (14) days prior to the hearing by mailing the same to such parties' last known address by regular mail. All meetings or hearings shall be open to the public. The Board of Appeals shall, from time to time, adopt such additional rules and regulations as it deems necessary and advisable for the conduct of its hearings and for carrying out the provisions hereof. The *code official* shall take action without delay in accordance with the decision of the board.

Chapter 2 – Definitions

The following section is amended to add definitions in alphabetical order as follows:

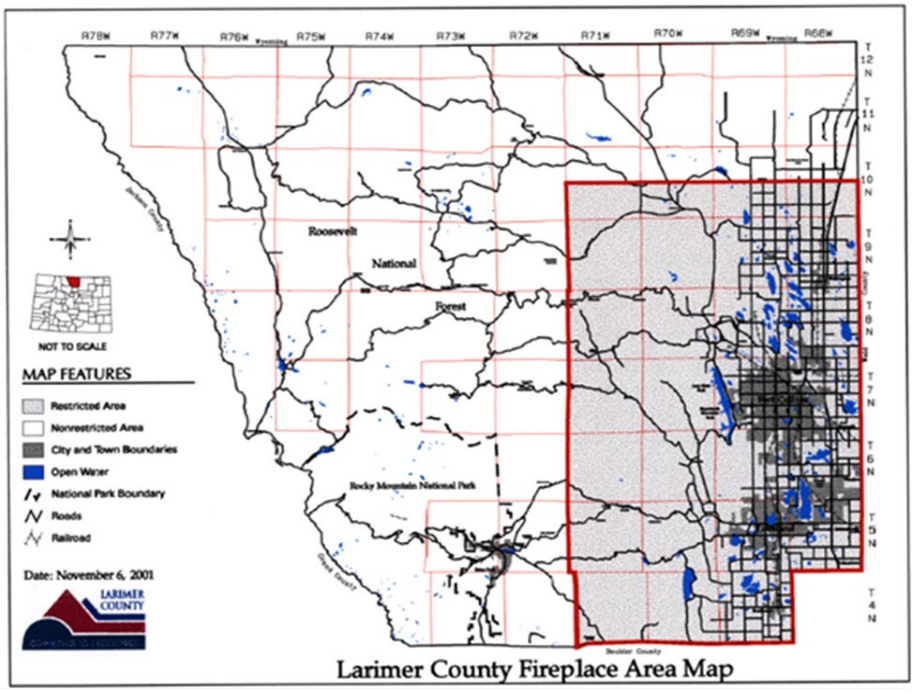
SECTION 202 GENERAL DEFINITIONS

INTERNATIONAL FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

NON-RESTRICTED AREA. That part of unincorporated Larimer County located west of Range 71 or north of the north half of Township 10, and east of Range 72 as shown on the Larimer County Fireplace Area Map.

RESTRICTED AREA. That part of unincorporated Larimer County located outside the Non-restricted Area as shown on the Larimer County Fireplace Area Map.

Larimer County Fireplace Area Map



Chapter 3 – Provisions for All Compliance Methods

The following section is hereby amended to read as follows:

301.3 Alteration, addition or change of occupancy. The *alteration, addition* or *change of occupancy* of all *existing buildings* shall comply with Section 301.3.2.

Exception: Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to the following:

1. *Alterations* for accessibility required by Section 306.
2. *Alterations* that constitute *substantial improvement* in *flood hazard areas*, which shall comply with Section 701.3.
3. Structural provisions of Section 304, or to the structural provisions of Sections 706, 805 and 906.

The following sections are hereby deleted in their entirety:

~~**301.3.1 Prescriptive compliance method.**~~

~~**301.3.3 Performance compliance method.**~~

302.2 Additional codes. Alterations, repairs, additions and changes of occupancy to, or relocation of, existing buildings and structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy or relocation, respectively, in this code and the International Energy Conservation Code , International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Property Maintenance Code, International Residential Code, Larimer County Land Use Code, Larimer County Department of Health and Environment regulations, Colorado Wildfire Resiliency Code, Colorado Model Electric Ready and Solar Ready Code, and NFPA 70. Where provisions of the other codes conflict with provisions of this code, the provisions of this code shall take precedence.

The following section is hereby amended to read as follows:

307.1 Smoke alarms. Where an *alteration, addition, change of occupancy* or relocation of a building is made to an *existing building* or structure of a Group R or I-1 occupancy, the existing building shall be provided with smoke alarms in accordance with the *International Fire Code* or Section R310 of the *International Residential Code*.

Exception: Work classified as Level 1 *Alterations* in accordance with Chapter 7, other than installation, alteration, or repair of plumbing or mechanical systems.

The following section is hereby amended to read as follows:

308.1 Carbon monoxide detection. Where an *addition, alteration, change of occupancy* or relocation of a building is made to an *existing building*, the *existing building* shall be provided with carbon monoxide detection in accordance with the *International Fire Code* or Section R311 of the *International Residential Code.*

Exceptions:

1. Work involving the exterior surfaces of buildings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of porches or decks.
2. Work classified as Level 1 *Alterations* in accordance with Chapter 7, other than installation, alteration, or repairs of plumbing or mechanical systems.
3. In Group I-2 occupancies, carbon monoxide detection is not required in each sleeping unit where carbon monoxide detection, which transmits an alarm signal to an *approved* location, is provided in each space containing a carbon monoxide source.

The following section is hereby deleted in its entirety:

~~**CHAPTER 5 PRESCRIPTIVE COMPLIANCE METHOD**~~

Chapter 11 – Additions

The following section is hereby amended to read as follows:

1011.5.6 Existing emergency escape and rescue openings. Where a *change of occupancy* would require an *emergency escape and rescue* opening in accordance with Section 1031 of the *International Building Code*, operable windows serving as the *emergency escape and rescue opening* shall comply with the following:

1. An existing operable window shall provide a minimum net clear opening of 5 square feet (0.47 m^2) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm).
2. A replacement window where such window complies with both of the following:
   2.1. The replacement window meets the size requirements in Item 1.
   2.2. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

The following section is hereby deleted in its entirety:

~~**CHAPTER 13 PERFORMANCE COMPLIANCE METHODS**~~

Chapter 14 – Relocated or Moved Buildings

The following section is hereby added to read as follows:

1402.1.1 *Wildfire hazard area*. If relocated or moved into a *wildfire hazard area*, structures shall comply with the Colorado Wildfire Resiliency Code as adopted and amended by Larimer County.

The following section is hereby added to read as follows:

1402.1.2 Fireplace restricted area. If relocated or moved into a *Restricted Area*, structures shall comply with Section 2111.15 of the International Building Code, or Section R1001.1.1 of the International Residential Code, as applicable.

The following section is hereby added to read as follows:

1402.1.3 *Moved manufactured or mobile homes.* Where manufactured or mobile homes are to be located at or above 6,000 feet (1,829 m) elevation, or in areas where ultimate design wind speeds equal or exceed 140 mph (225 km/h), the permit holder shall install or take snow and wind mitigation measures pre-approved by the Larimer County Building Division. Such measures may include independent, engineered structural roof systems capable of resisting the site design snow load, approved snow removal plans, engineered wind fences, or other engineered site-specific designs considering prevailing winds, exposure, topography, trees and other relevant natural features.

The following Appendix is hereby adopted as amended:

Appendix E - Temporary Emergency Uses

The following section is hereby amended to read as follow:

E107.3.5 Structures located in a wildland-urban interface zone.

Tiny houses and manufactured homes that are located in a wildland-urban interface area shall be provided with defensible space in accordance with the Colorado Wildfire Resiliency Code as adopted and amended by Larimer County.

2024 INTERNATIONAL FUEL GAS CODE (IFGC)

Chapter 1 – Administration

The following section is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the Fuel Gas Code of Larimer County, hereinafter referred to as "this code."

The following section is hereby amended to read as follows:

101.2 Scope. This code shall apply to the installation of fuel-gas *piping* systems, *fuel gas appliances, gaseous hydrogen* systems and related accessories in accordance with Sections 101.2.2 through 101.2.6.

Exception: Detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress, *short-term rentals*, resort lodge cottages with ten or less occupants, and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the International Residential Code.

The following section is hereby amended to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 8 and such codes as adopted and amended by Larimer County and standards shall be considered to be part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.8.1 and 102.8.2.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and the manufacturer's installation instructions shall apply.

The following section is hereby amended to read as follows:

102.10 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings, structures, systems and appliances under the scope of this code shall also comply with the Colorado Wildfire Resiliency Code, the Colorado Model Electric Ready and Solar Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

103.1 Creation of agency.

The Building Division is hereby created and the official in charge thereof shall be known as the *code official.* The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

The following section is hereby amended to read in its entirety as follows:

104.2.4.1 Flood hazard areas.

The County Engineer shall not grant modifications to any provision required in *flood hazard areas* as established by the Larimer County Land Use Code without the granting of a variance to such provisions by the County Engineer.

The following section is hereby amended to read as follows:

104.3.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas. For applications for reconstruction, rehabilitation, repair, alteration, addition or other improvement of existing buildings or structures located in flood hazard areas, the County Engineer shall determine if the proposed work constitutes substantial improvement or repair of substantial damage. Where the County Engineer determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by this code, the County Engineer shall require the building to meet the requirements of the Larimer County Land Use Code, as applicable.

The following sections are hereby deleted in their entirety:

~~**105.1.1 Annual permit.**~~
~~**105.1.2. Annual permit records.**~~

Chapter 2 – Definitions

The following section is hereby amended by adding a definition in alphabetical order to read as follows:

SECTION 202 GENERAL DEFINITIONS

INTERNATIONAL FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

Chapter 3 – General Regulations

The following section is hereby amended to read as follows:

303.3 Prohibited locations. Appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage closets or surgical rooms, or in a space that opens only into such rooms or spaces, except where the installation complies with one of the following:

1. The appliance is a direct-vent appliance installed in accordance with the conditions of the listing and the manufacturer's instructions.
2. Vented room heaters, wall furnaces, vented decorative appliances, vented gas fireplaces, vented gas fireplace heaters and decorative appliances for installation in vented solid fuel-burning fireplaces are installed in rooms that meet the required volume criteria of Section 304.5.
3. The appliance is installed in a room or space that opens only into a bedroom or bathroom, and such room or space is used for no other purpose and is provided with a solid weather-stripped door equipped with an approved self-closing device. Combustion air shall be taken directly from the outdoors in accordance with Section 304.6.
4. A clothes dryer is installed in a residential bathroom or toilet room having a permanent opening with an area of not less than 100 square inches (.06 m^2) that communicates with a space outside of a sleeping room, bathroom, toilet room or storage closet.

The following section is hereby amended solely by amending the exception to #1 (#2 through #8 are unchanged) to read as follows:

304.11 Combustion air ducts.

Combustion air ducts shall comply with all of the following:

1. Ducts shall be constructed of galvanized steel complying with Chapter 6 of the I*nternational Mechanical Code* or of a material having equivalent corrosion resistance, strength and rigidity.
   Exception: Where the installation of galvanized steel ducts is not practical due to existing finish materials within dwellings units that are undergoing alteration or reconstruction, unobstructed stud and joist spaces shall not be prohibited from conveying combustion air, provided that not more than one required fireblock is removed.

Chapter 4 – Gas Piping Installation

The following section is hereby amended to read as follows:

404.12 Minimum burial depth. Underground *piping* systems shall be installed a minimum of 18 inches (457 mm) below finished grade, except as provided in Section 404.12.1.

The following section is hereby amended to read as follows:

404.12.1 Individual outside appliances. Individual lines to outside lights, grills, or other *appliances* shall be installed not less than 18 inches (457 mm) below finished grade.

Exception: Approved materials installed a minimum of 6 inches (152 mm) below finished grade when covered with a minimum 4-inch-thick (101.6 mm) concrete slab.

***The following section is hereby amended to read as follows*:**

406.4.1 Test pressure. The test pressure to be used shall be 10 psi for non-welded pipe for natural gas, 30 psi for liquid propane gas, and 60 psi for welded pipe.

Exception: one-piece tubing without joints other than at regulators is not required to be tested during inspection.

The following section is hereby amended to read as follows:

409.5.1 Located within same room. The shutoff valve shall be located in the same room as the appliance. The shutoff valve shall be within 6 feet (1829 mm) of the appliance, and shall be installed upstream of the union, connector or quick disconnect device it serves. Such shutoff valves shall be provided with access. Shutoff valves serving movable appliances, such as cooking appliances and clothes dryers, shall be considered to be provided with access where installed behind such appliances. Appliance shutoff valves located in the firebox of a fireplace shall be installed in accordance with the appliance manufacturer's instructions and shall have a secondary shutoff outside the firebox.

The following section is hereby amended to read as follows:

410.3 Venting of regulators. Pressure regulators that require a vent shall be vented directly to the outdoors. The vent shall terminate at least 3 feet (914 mm) from any openings into the building or per the manufacturer's installation instructions if they specify a different termination distance. The vent shall be designed to prevent the entry of insects, water and foreign objects.

Exception: A vent to the outdoors is not required for regulators equipped with and labeled for utilization with an approved vent limiting device installed in accordance with the manufacturer's instructions.

Chapter 5 – Chimneys and Vents

The following section is hereby amended to read as follows:

501.8 Appliances not required to be vented. The following appliances shall not be required to be vented:

1. Electric ranges.
2. Built-in domestic cooking units listed and marked for optional venting.
3. Hot plates and laundry stoves.
4. Type 1 clothes dryers (Type 1 clothes dryers shall be exhausted in accordance with the requirements of Section 614).
5. A single booster-type automatic instantaneous water heater, where designed and used solely for the sanitizing rinse requirements of a dishwashing machine, provided that the heater is installed in a commercial kitchen having a mechanical exhaust system. Where installed in this manner, the draft hood, if required, shall be in place and unaltered and the draft hood outlet shall be not less than 36 inches (914 mm) vertically and 6 inches (152 mm) horizontally from any surface other than the heater.
6. Refrigerators.
7. Counter appliances.
8. Direct-fired makeup air heaters.
9. Specialized appliances of limited input such as laboratory burners and gas lights.

Where the appliances listed in Items 5 through 11 are installed so that the aggregate input rating exceeds 20 British thermal units (Btu) per hour per cubic foot (207 watts per m^3) of volume of the room or space in which such appliances are installed, one or more shall be provided with venting systems or other approved means for conveying the vent gases to the outdoor atmosphere so that the aggregate input rating of the remaining unvented appliances does not exceed 20 Btu per hour per cubic foot (207 watts per m^3). Where the room or space in which the appliance is installed is directly connected to another room or space by a doorway, archway or other opening of comparable size that cannot be closed, the volume of such adjacent room or space shall be permitted to be included in the calculations.

The following section is hereby amended to read as follows:

503.1 General. The venting of appliances shall be in accordance with Sections 503.2 through 503.16. Vents shall terminate 12” (305 mm) minimum above anticipated snow level and a minimum of 22 inches (559 mm) above the surface or grade directly below.

Chapter 6 – Specific Appliances

The following section is hereby amended to read as follows:

614.4.1 Terminal location. Exhaust duct terminations shall be in accordance with the dryer manufacturer's installation instructions and not less than 3 feet (914 mm) in any direction from openings into buildings including openings in ventilated soffits.

The following section is hereby amended to read as follows:

614.9.2 Duct installation. Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners. Where dryer exhaust ducts are enclosed in wall or ceiling cavities, such cavities shall allow the installation of the duct without deformation.

The following section is hereby amended to read as follows:

614.9.4 Duct length. The maximum allowable exhaust duct length shall be determined by one of the methods specified in Sections 614.9.4.1 through 614.9.4.2.

The following section is hereby deleted in its entirety:

~~**614.9.4.2 Manufacturer’s instructions.**~~

The following section is renumbered but otherwise unchanged to read as follows:

614.9.4.2 Dryer exhaust duct power ventilator length. The maximum length of the exhaust duct shall be determined by the dryer exhaust duct power ventilator manufacturer’s installation instructions.

The following section is deleted in its entirety as follows:

~~**621 UNVENTED ROOM HEATERS.**~~

The following section is hereby added to read as follows:

623.3.1 Kitchens with gas cooking appliances. Gas cooking appliances in residential kitchens shall be supplied with an exhaust system vented to the outside. Ducts serving kitchen exhaust systems shall not terminate in an attic, crawl space or areas inside the building and shall not induce or create a negative pressure in excess of negative 3 Pa or adversely affect gravity-vented appliances.

The following section is hereby amended to read as follows:

630.3 Combustion and ventilation air. Where infrared heaters are installed, natural or mechanical means shall provide outdoor ventilation air at a rate of not less than 4 cfm per 1,000 Btu/h (0.38 m3/min/kW) of the aggregate input rating of all such heaters installed in the space. Exhaust openings for removing flue products shall be above the level of the heaters.

2024 INTERNATIONAL MECHANICAL CODE AMENDMENTS (IMC)

Chapter 1 – Administration

The following section is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the Mechanical Code of Larimer County, hereinafter referred to as "this code."

The following section is hereby amended to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced herein shall be those that are listed in Chapter 15 and such codes as adopted and amended by Larimer County and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.8.1 and 102.8.2.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and the manufacturer's installation instructions shall apply.

The following section is hereby amended to read as follows:

102.10 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings, structures, systems, equipment and appliances under the scope of this code shall also comply with the Colorado Wildfire Resiliency Code, the Colorado Model Electric Ready and Solar Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code, and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

103.1 Creation of agency. The Building Division is hereby created and the official in charge thereof shall be known as the *code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

The following sections are hereby deleted in their entirety:

~~**105.1.1. Annual permit.**~~
~~**105.1.2 Annual permit records.**~~

The following section is hereby deleted in its entirety:

~~**Section 113 Board of Appeals.**~~

Chapter 2 – Definitions

The following section is hereby amended by adding definitions to read as follows:

SECTION 202 GENERAL DEFINITIONS

FIREPLACE INSERT: A wood burning device designed to be installed in an existing fireplace.

INTERNATIONAL FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

NON-RESTRICTED AREA: That part of unincorporated Larimer County located west of Range 71 or North of the north half of Township 10, and east of Range 72 as shown on the Larimer County Fireplace Area Map.

RESTRICTED AREA: That part of unincorporated Larimer County located outside the Non-restricted Area as shown on the Larimer County Fireplace Area Map.

WOOD STOVE: An appliance designed for or capable of burning wood and capable of and intended for domestic space heating or domestic water heating.

Chapter 5 – Exhaust Systems

The following section is hereby amended to read as follows:

504.4.1 Termination location. Exhaust duct terminations shall be in accordance with the dryer manufacturer's installation instructions and not less than 3 feet (914 mm) in any direction from openings into buildings, including openings in ventilated soffits.

The following section is hereby amended to read as follows:

504.9.4 Duct length. The maximum allowable exhaust duct length shall be determined by one of the methods specified in Sections 504.9.4.1 through 504.9.4.2

The following section is hereby deleted in its entirety:

~~**504.9.4.2 Manufacturer's instructions.**~~

The following section is hereby amended to read as follows:

504.9.4.2 Dryer exhaust duct power ventilator length. The maximum length of the exhaust duct shall be determined by the dryer exhaust duct power ventilator manufacturer's installation instructions.

Chapter 6 – Duct Systems

The following section is hereby amended by adding one sentence at the beginning to read as follows:

601.5 Return air openings. A return air path shall be provided for all habitable rooms by means of ducts or transfer grills Return air openings for heating, ventilation and air-conditioning systems shall comply with all of the following:

[Items 1 through 10 and Exceptions are unchanged.]

The following section is hereby amended in its entirety to read as follows:

602.2.1 Stud cavity and joist space plenums. Stud wall cavities and the spaces between solid floor joists shall not be utilized as air plenums.

The following section is hereby added to read as follows:

603.18.3 Construction debris and contamination. Mechanical air-handling systems and their related ducts shall be protected from the entrance of dirt, debris, and dust during the construction and installation process. Prior to passing final inspection or issuance of a Certificate of Occupancy, such systems shall be substantially free of construction-related contaminants.

Chapter 8 – Chimneys and Vents

The following section is hereby added to read as follows:

802.6.1 Minimum vent height above snow level. Vents shall terminate 12" (305 mm) minimum above anticipated snow level and a minimum of 22 inches (559 mm) above the surface or grade directly below.

Chapter 9 – Specific Appliances, Fireplaces, and Solid Fuel-Burning Equipment

The following section is hereby added to read as follows:

901.5 Installation

A. All fireplaces installed in the Restricted Area (Figure 901.5 Larimer County Fireplace Area Map) shall be one of the following:
   (i). A gas fireplace or fireplace with a gas log installed and functioning at time of final inspection;
   (ii). An electric device; or
   (iii). A fireplace that meets the most current emissions standards for wood stoves established by the Colorado Air Quality Control Commission, or any other clean-burning device that is approved by the commission.
B. All fireplaces installed prior to January 1, 2002, in the Restricted Area shall be allowed to remain in use until such time as the owner voluntarily replaces it. Upon replacement, such fireplace shall be one of the types specified in Subsection (A) (i), (ii), or (iii).
C. Within the Non-restricted Area, fireplaces including but not limited to masonry and factory-built fireplaces shall be allowed without being required to meet the standards in Subsection (A).

The following section is hereby amended to read as follows:

903.1 General. Factory-built fireplaces shall be listed and labeled and shall be installed in accordance with the conditions of the listing. Factory-built fireplaces shall be tested in accordance with UL 127. Factory-built fireplaces shall comply with Section 901.5.

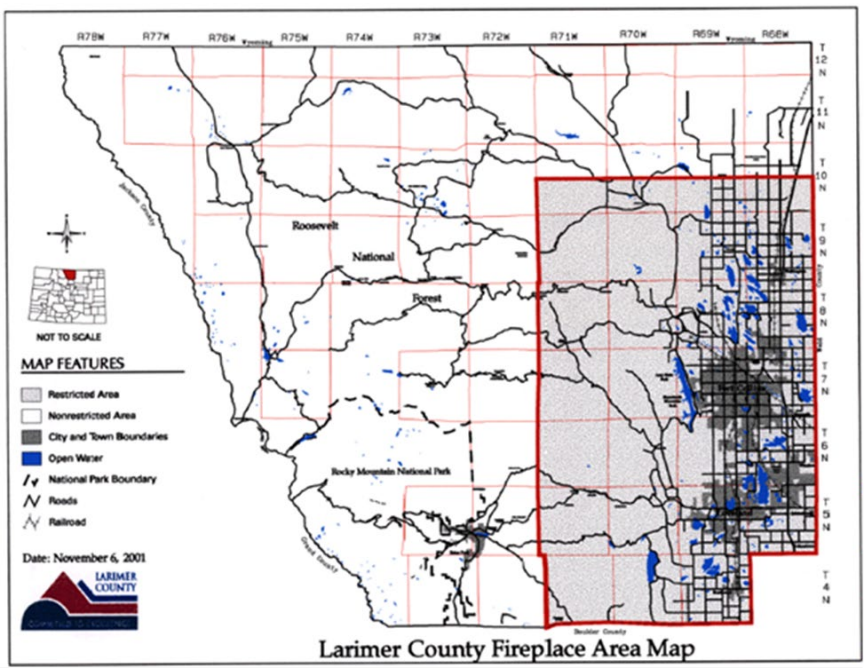
The following section is hereby deleted in its entirety:

~~**903.3 Unvented gas log heaters.**~~

The following section is hereby amended to read as follows:

905.1 General. Fireplace stoves and solid-fuel-type room heaters shall be listed and labeled and shall be installed in accordance with the conditions of the listing. Fireplace stoves shall be tested in accordance with UL 737. Solid-fuel-type room heaters shall be tested in accordance with UL 1482. Fireplace inserts intended for installation in fireplaces shall be listed and labeled in accordance with the requirements of UL 1482 and shall be installed in accordance with the manufacturer's instructions. New wood-burning residential hydronic heaters shall be EPA certified. Wood-burning appliances shall meet the latest emission standards as established by the State of Colorado and Federal Regulation 40 CFR Part 60, Subpart AAA.

FIGURE 901.5 Larimer County Fireplace Area Map



2024 INTERNATIONAL PLUMBING CODE (IPC)

Chapter 1 – Administration

The following section is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the International Plumbing Code of Larimer County hereinafter referred to as "this code."

The following section is hereby amended to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 15 and such codes as adopted and amended by Larimer County and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.8.1 and 102.8.2.

The following section is hereby amended to read as follows:

102.10 Other laws.

The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings, structures, plumbing systems, appliances and equipment under the scope of this code shall also comply with the Colorado Plumbing Code, the Colorado Fuel Gas Code, the Colorado Electrical Code, the Colorado Wildfire Resiliency Code, and the Colorado Model Electric-Ready and Solar-Ready Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

103.1 Creation of agency.

The Building Division is hereby created and the official in charge thereof shall be known as the *code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

The following sections are hereby deleted in their entirety:

~~**105.1.1 Annual permit.**~~
~~**105.1.2. Annual permit records.**~~

The following section is hereby amended to read as follows:

105.2 Exempt work.

The following work shall be exempt from the requirement for a permit:

1. The stopping of leaks in drains, water, soil, waste or vent pipe provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of plumbing fixtures, provided that such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

The following section is hereby deleted in its entirety:

~~**Section 113 Board of Appeals.**~~

Chapter 2 – Definitions

The following section is hereby amended by adding a definition to read as follows:

SECTION 202 GENERAL DEFINITIONS

INTERNATIONAL FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

Chapter 3 – General Regulations

The following section is hereby amended to read as follows:

305.4 Freezing. Water, soil and waste pipes shall not be installed outside of a building, in attics or crawl spaces, concealed in outside walls, or in any other place subjected to freezing temperatures unless adequate provision is made to protect such pipes from freezing by insulation or heat or both. Exterior water supply system piping shall be installed not less than 54 inches (305 mm) below grade.

The following section is hereby amended to read as follows:

305.4.1 Sewer depth. Building sewers that connect to private sewage disposal systems shall be installed not less than 12" below finished grade at the point of septic tank connection and shall comply with Larimer County Department of Health and Environment Regulations. Building sewers shall be installed not less than 12" inches below grade.

The following section is hereby amended to read as follows:

312.1 Required tests. The permit holder shall make the applicable tests prescribed in Sections 312.2 through 312.10 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for tests. The equipment, material, power and labor necessary for the inspection and test shall be furnished by the permit holder and he or she shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests. Plumbing system piping shall be tested with either water or by air. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to final tests. The code official shall require the removal of any cleanouts if necessary to ascertain whether the pressure has reached all parts of the system.

The following section is hereby amended by deleting the first sentence to read as follows:

312.3 Drainage and vent air test. An air test shall be made by forcing air into the system until there is a uniform gauge pressure of 5 psi (34.5 kPa) or sufficient to balance a 10-inch (254 mm) column of mercury. This pressure shall be held for a test period of not less than 15 minutes. Any adjustments to the test pressure required because of changes in ambient temperatures or the seating of gaskets shall be made prior to the beginning of the test period.

The following section is hereby deleted in its entirety:

~~**312.10 Shower liner test.**~~

Chapter 4 – Fixtures, Faucets and Fixture Fittings

The following section is hereby amended to read as follows:

TABLE 403.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES footnote "e" (no other changes to table)

e. For business and mercantile classifications with an occupant load of 15 or fewer and storage classifications without plumbing fixtures, a service sink shall not be required.

The following section is hereby amended to read as follows:

403.2 Separate facilities. Where plumbing fixtures are required, separate toilet facilities shall be provided for each gender. **Exceptions:**

1. Separate toilet facilities shall not be required for *dwelling units* and *sleeping units*.
2. Separate toilet facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of 25 or fewer.
3. Separate toilet facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
4. Separate toilet facilities shall not be required to be designated by gender where single-user toilet rooms are provided in accordance with Section 403.1.2.
5. Separate toilet facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by all persons regardless of gender, and privacy is provided for water closets in accordance with Section 405.3.4, for urinals in accordance with Section 405.3.5, and the following. In all–gender multi-user toilet facilities, urinals shall be located in separate compartments. The bottom edge of toilet and urinal compartment partition walls shall begin a maximum of four inches above the floor, with the top edge including the door a minimum of 96" above the floor or within 6" of the ceiling, whichever is less. Partitions shall prevent visual observation from outside the compartment for the full height of the door on both sides. Where full height compartment walls and doors are used instead of partitions, each compartment shall comply with the Building, Mechanical and Electrical Codes for lighting, ventilation, exhaust, sprinklers and alarms.

The following section is hereby amended solely to add Exception #3 to read as follows:

403.3 Employee and public toilet facilities.

Exception:

3. Farm stands as defined in the Larimer County Land Use Code having a public access area not greater than 600 square feet (56 m^2).

The following section is hereby amended to read as follows:

410.2 Small occupancies. Drinking fountains shall not be required for an occupant load of 25 or fewer.

Chapter 7 – Sanitary Drainage

The following section is hereby amended to read as follows:

701.2 Connection to sewer required. Sanitary drainage piping from plumbing fixtures in buildings and sanitary drainage piping systems from premises shall be connected to a public sewer. Where a public sewer is not available, the sanitary drainage piping and systems shall be connected to a private sewage disposal system in compliance with state or local requirements.

Exception: Graywater systems shall comply with Larimer County Department of Health and Environment regulations.

Chapter 9 – Vents

The following section is hereby amended to read as follows:

903.1.1 Roof extension unprotected. Open vent pipes that extend through a roof shall be terminated not less than 6 inches (152 mm) above the roof.

Chapter 13 – Non-potable Water Systems

The following section is hereby amended to read as follows:

1301.1 General. Larimer County Department of Health and Environment regulations shall govern the materials, design, construction and installation of systems for the collection, storage, treatment and distribution of nonpotable water.

Chapter 14 – Subsurface Graywater Soil Absorption Systems

The following section is hereby amended to read as follows:

1401.1 Scope. Larimer County Department of Health and Environment regulations shall govern the materials, design, construction and installation of subsurface graywater soil absorption systems connected to nonpotable water from on-site water reuse systems.

2024 INTERNATIONAL PROPERTY MAINTENANCE CODE (IPMC)

Chapter 1 – Scope and Administration

The following section is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the *Property Maintenance Code of Larimer County*, hereinafter referred to as "this code."

The following section is hereby amended to read as follows:

101.2. Scope. The provisions of this code shall apply to all existing residential and nonresidential structures and constitute minimum requirements and standards for structures, equipment, and facilities for protection from the elements, a reasonable level of safety from fire and other hazards; and for a reasonable level of sanitary maintenance; the responsibility of *owners*, an owner's authorized agent, *operator*s and *occupants*; the *occupancy* of existing structures and premises, and for administration, enforcement and penalties.

The following section is hereby amended to read as follows:

101.3 Purpose. The purpose of this code is to establish minimum requirements to provide a reasonable level of health, safety, property protection and general welfare insofar as they are affected by the continued occupancy and maintenance of structures. Existing structures that do not comply with these provisions shall be altered or repaired to provide a reasonable minimum level of health, safety and general welfare as required herein.

The following section is hereby amended to read as follows:

102.3 Application of other codes. Repairs, additions or alterations to a structure, or changes of occupancy, shall be done in accordance with the procedures and provisions of the *International Building Code, International Existing Building Code, International Energy Conservation Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Residential Code, International Plumbing Code* and NFPA 70. Nothing in this code shall be construed to cancel, modify or set aside any provision of the Larimer County Land Use Code.

The following section is hereby amended to read as follows:

102.8 Referenced codes and standards. The codes as adopted and amended by Larimer County and standards referenced in this code shall be those that are listed in Chapter 8 and considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.8.1 and 102.8.2.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing shall apply.

The following section is hereby amended to read as follows:

102.11 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings and structures under the scope of this code shall also comply with the Colorado Wildfire Resiliency Code, the Colorado Model Electric Ready Solar Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code, and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

103.1 Creation of enforcement agency. The Building Division is hereby created and the official in charge shall be known as the *code official.* The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

***The following section is hereby amended to read as follows*:**

106.4 Administration. To appeal a written determination of the *code official* to the Board of Appeals, a written appeal must be received by the *code official* within thirty (30) days of the date of the determination being appealed. The appellant shall, at the time of making such appeal, pay to the Larimer County Building Division an appeal fee as specified in the Larimer County fee schedule. The *code official* shall send written notice of hearing to all parties concerned at least fourteen (14) days prior to the hearing by mailing the same to such parties' last known address by regular mail. All meetings or hearings shall be open to the public. The Board of Appeals shall, from time to time, adopt such additional rules and regulations as it deems necessary and advisable for the conduct of its hearings and for carrying out the provisions hereof. The *code official* shall take action without delay in accordance with the decision of the board.

The following section is hereby amended to read as follows:

109.1.3 Structure unfit for human occupancy. A *structure* is unfit for human *occupancy* whenever the *code official* or *Health Official* finds that such structure is unsafe, unlawful or, because of the degree to which the structure is in disrepair, or lacks maintenance, is insanitary, is vermin or rat infested, contains filth and contamination, or lacks sanitary facilities or other essential equipment required by this code, or because the location of the structure constitutes a hazard to the occupants of the structure or to the public.

The following section is hereby amended to read as follows:

109.1.4 Unlawful structure. An unlawful *structure* is one found in whole or in part to be erected, altered or occupied contrary to law.

The following section is hereby amended solely to amend item #7 to read as follows:

109.1.5 Hazardous structure. For the purpose of this code, any *structure* that has any or all of the conditions or defects described as follows shall be considered to be hazardous:

7. A building or structure, used or intended to be used for dwelling purposes, because of inadequate maintenance, dilapidation, decay, damage, faulty construction or arrangement, or otherwise, is determined by the *code official* or *Health Official*, to be unsanitary, unfit for human habitation or in such a condition that is likely to cause sickness or disease.

The following section is hereby amended to read as follows:

109.2 Closing of vacant structures. If the *structure* is vacant and unfit for human habitation and *occupancy*, and is not in danger of structure collapse, the *code official* is authorized to post a placard of condemnation on the premises and order the structure closed up so as not be an attractive nuisance. Upon failure of the owner or owner's authorized agent to close up the *premises* within in the time specified in the order, the *code official* shall cause the *premises* to be closed and secured through any available public agency or by contract or arrangement by private persons and the cost thereof shall be charged against the real estate upon which the *structure* is located and shall be a lien upon such real estate or may be made a personal obligation of the person causing the violation, whichever the legislative body of this jurisdiction shall determine is appropriate, and shall be collected by any other legal resource.

The following section is hereby amended to read as follows:

110.5 Costs of emergency repairs. Costs incurred in the performance of emergency work may be initially paid by the jurisdiction. The legal counsel of the jurisdiction shall institute appropriate action against the owner of the premises or owner's authorized agent where the unsafe structure is or was located, for the recovery of such costs, or the costs may be made a personal obligation of the person causing the violation, whichever the legislative body of this jurisdiction shall determine is appropriate. In the event of a locally declared emergency or disaster causing the abatement work to be completed, the Larimer County Board of County Commissioners may determine that the scope of damage is of such extent that abatement cost recovery would cause undue hardship to the community, and therefore the property owner(s) will not be held responsible for abatement costs.

The following section is hereby amended to read as follows:

111.3 Failure to comply. If the owner of a premises or owner's authorized agent fails to comply with a demolition order within the time prescribed, the code official shall cause the structure to be demolished and removed, either through an available public agency or by contract or arrangement with private persons, and the cost of such demolition and removal shall be charged against the real estate upon which the structure is located and shall be a lien upon such real estate, or the cost may be made a personal obligation of the person causing the violation, whichever the legislative body of this jurisdiction shall determine is appropriate based on the specific situation at the time.

Chapter 2 – Definitions

The following section is hereby amended to read as follows:

201.3 Terms defined in other codes.

Where terms are not defined in this code and are defined in the International Building Code, International Existing Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Residential Code, Larimer County Land Use Code or NFPA 70, such terms shall have the meanings ascribed to them as stated in those codes.

The following section is hereby amended by adding or amending definitions to read as follows:

SECTION 202 GENERAL DEFINITIONS

HEALTH OFFICIAL. Employee of the Larimer County Department of Health and Environment, state or federal official duly authorized to enforce environmental or public health regulations.

INTERNATIONAL FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

CHAPTER 3 is hereby deleted in its entirety.

~~**GENERAL REQUIREMENTS**~~

CHAPTER 4 is hereby deleted in its entirety.

~~**LIGHT, VENTILATION AND OCCUPANCY LIMITATIONS**~~

CHAPTER 5 is hereby deleted in its entirety.
~~**PLUMBING FACILITIES AND FIXTURE REQUIREMENTS**~~

CHAPTER 6 is hereby deleted in its entirety.
~~**MECHANICAL AND ELECTRICAL REQUIREMENTS**~~

CHAPTER 7 is hereby deleted in its entirety.
~~**FIRE SAFETY REQUIREMENTS**~~

CHAPTER 8 is hereby amended in its entirety to read as follows:
REFERENCED STANDARDS

ICC International Code Council, 200 Massachusetts Avenue NW, Suite 250, Washington, DC 20001
IBC-24: International Building Code, 102.3, 201.3
ICC 500 - 2020/NSSA Standard for the Design and Construction of Storm Shelters, 202
IEBC-24: International Existing Building Code, 102.3, 201.3
IECC-24: International Energy Conservation Code, 102.3
IFC-24: International Fire Code, 102.3, 201.3
IFGC-24: International Fuel Gas Code, 102.3, 201.3
IMC-24: International Mechanical Code, 102.3, 201.3
IPC-24: International Plumbing Code, 102.3, 201.3
IRC-24: International Residential Code, 102.3, 201.3

NFPA National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471
70-23: National Electrical Code, 102.3, 201.3

2024 INTERNATIONAL SWIMMING POOL AND SPA CODE (ISPSC)

Chapter 1 – Administration

The following section is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the Swimming Pool and Spa Code of Larimer County, hereinafter referred to as "this code."

The following section is hereby amended to read as follows:

101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, renovation, replacement, repair and maintenance of aquatic recreation facilities, pools and spas. The pools and spas covered by this code are either permanent or temporary, and shall be only those that are designed and manufactured to be connected to a circulation system and that are intended for swimming, bathing or wading.

Exception: All pools 24" deep or greater shall comply with Section 305 "Barrier Requirements."

The following section is hereby amended to read as follows:

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 11 and such codes as adopted and amended by Larimer County and standards shall be considered to be part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements.

The following section is hereby amended to read as follows:

102.9 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All aquatic recreation facilities, pools and spas under the scope of this code shall also comply with the Colorado Wildfire Resiliency Code, the Colorado Model Electric-Ready and Solar-Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code, and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

The following section is hereby amended to read as follows:

103.1 Creation of enforcement agency. The Building Division is hereby created and the official in charge shall be known as the *code official.* The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

Chapter 2 – Definitions

The following section is hereby amended by adding a definition to read as follows:

SECTION 202 GENERAL DEFINITIONS

FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

Chapter 3 – General Compliance

The following section is hereby amended in its entirety to read as follows:

304.2 General. Pools and spas located in flood hazard areas indicated within the *International Building Code* or the *International Residential Code* shall comply with the Larimer County Land Use Code.

Chapter 4 – Public Swimming Pools

The following section is hereby amended in its entirety to read as follows:

403.1 Maximum bather load. The maximum bather occupant load of pools shall be in accordance with International Building Code Section 1004.

The following table is hereby deleted in its entirety:

~~**TABLE 403.1 MAXIMUM BATHER LOAD**~~

2024 INTERNATIONAL RESIDENTIAL CODE (IRC)

Chapter 1 – Scope And Administration

***The following section is hereby amended to read as follows*:**

R101.1 Title. These provisions shall be known as the Residential Code for One- and Two-Family Dwellings of Larimer County and shall be cited as such and will be referred to herein as "this code."

The following section is hereby amended to read as follows:

R101.2 Scope.

Exceptions: The following shall be permitted to be constructed in accordance with this code:

1. Live/work units complying with the requirements of Section 508.5 of the *International Building Code.*
2. Owner-occupied lodging houses with five or fewer guestrooms when complying with Section R334.
3. A care facility with five or fewer persons receiving custodial or medical care within a dwelling unit.
4. *Resort lodge cottages* not exceeding 10 occupants*,* when complying with Section R334.
5. *Short-term rentals.*
6. Family childcare homes complying with Appendix BD and Colorado state licensing requirements.

The following section is hereby amended to read as follows:

102.2 Other Laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law. All buildings structures, systems, equipment and appliances under the scope of this code shall also comply with the Colorado Wildfire Resiliency Code, the Colorado Model Electric Ready and Solar Ready Code, the Colorado Plumbing Code, the Colorado Fuel Gas Code, and the Colorado Electrical Code, as adopted by Larimer County. Where, in any specific case, the codes specify different requirements, the most restrictive shall apply.

***The following section is hereby amended to read as follows*:**

R102.4 Referenced codes and standards. The codes as adopted and amended by Larimer County and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections R102.4.1 and R102.4.2.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and manufacturer's instructions shall apply.

***The following section is hereby amended to read as follows*:**

R103.1 Creation of enforcement agency. The Building Division is hereby created and the official in charge thereof shall be known as the *building official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

***The following section is hereby amended to read in its entirety as follows (items 1 through 5 are deleted)*:**

R104.2.3.1 Flood Hazard areas. The County Engineer shall not grant modifications to any provisions required in flood hazard areas as established by the Larimer County Land Use Code without the granting of a variance to such provisions by the County Engineer.

The first paragraph in the following section is hereby amended to read as follows. The remainder is unchanged:

R104.3.1.1 Determination of substantially improved or substantially damaged existing buildings in flood hazard areas. For applications for reconstruction, rehabilitation, addition, or other improvement of existing buildings or structures located in a flood hazard area as established by the Larimer County Land Use Code, the County Engineer shall examine or cause to be examined the construction documents as well as other documents necessary for a determination of substantial improvement or substantial damage. The County Engineer shall make a determination with regard to the value of the proposed work. For buildings that have sustained damage of any origin, the value of the proposed work shall include the cost to repair the building or structure to its pre-damaged condition. If the County Engineer finds that the proposed work constitutes a substantial improvement or repair of substantial damage in accordance with the Larimer County Land Use Code, the entire building or structure shall meet the requirements of Section R306 and the Larimer County Land Use Code.

***The following section is hereby amended to read as follows*:**

R105.1 Required. Any owner or owner's authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, including bridges and culverts, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the *building official* and obtain the required *permit*.

***The following section is hereby amended by amending items 1, 3, 8 & 10 and adding items 11-16 to read as follows*:**

R105.2 Work exempt from permit. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. One-story detached accessory structures used as storage sheds, playhouses, and similar non-habitable uses, provided that the floor area does not exceed 200 square feet (18.58 m^2).
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from a point eight feet horizontally downslope from the low side finish grade to the high side finish grade behind the wall, provided that the horizontal distance to the next uphill retaining wall is at least equal to twice the height of the upper wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids. [See Figure 105.2.3]
8. Swings and other playground equipment, including not more than one elevated playhouse per lot, designed and used exclusively for play, not exceeding 64 square feet (5.9 m2) of floor area nor 8 feet (2.44 m) in height measured from the floor to the highest point of such structure.
10. Decks that are not more than 30 inches (762 mm) above grade at any point and that do not serve the exit door required by Section R318.2.
11. Roofing repair or replacement work not exceeding one square (100 square feet (9.29m2)) or 25% of roof covering per building, whichever is less.
12. Window replacement requiring no structural alterations.
13. Replacement of not more than 25% of non-structural siding that is not part of or installed over a fire-rated assembly when the removal of siding is performed in accordance with State laws regarding asbestos and lead paint.
14. Shade cloth and maximum 6 mil single layer poly-roofed structures, constructed for nursery or agricultural purposes, with no entry by the general public, not including service systems.
15. Public bridges, private culverts and pedestrian bridges that serve only one property, do not provide a means of egress or access to the property, and are not in a regulatory floodplain or county-designated major drainage area of interest (see map at https://www.larimer.org/engineering/stormwater-drainage)
16. Detached pergolas, arbors or trellises whose roof area is at least 67% open.

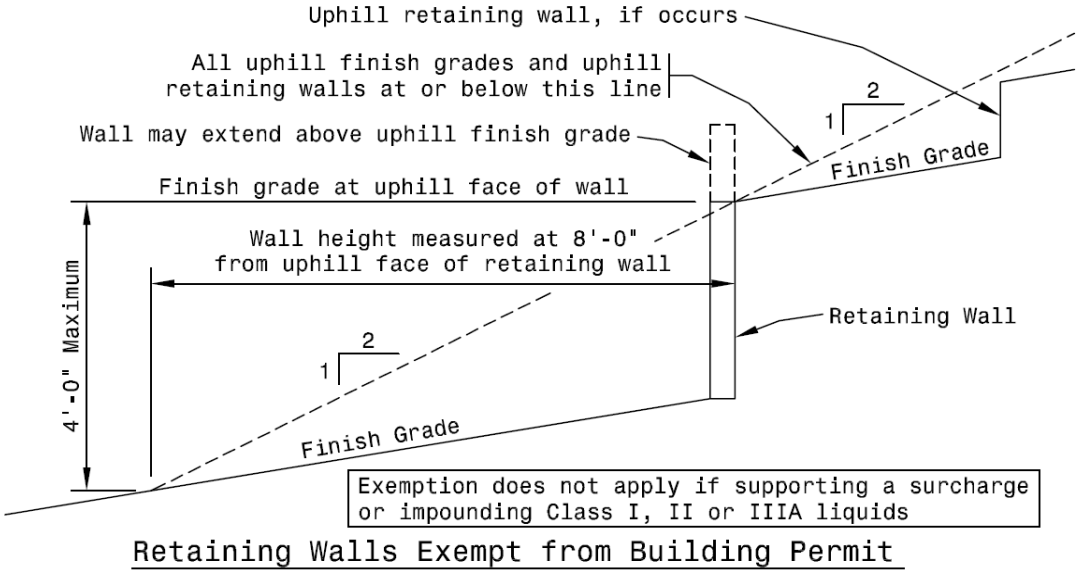


Figure 105.2.3

***The following section is hereby amended by amending Item # 2 under Plumbing: to read as follows*:**

R105.2. Work exempt from permit.

Plumbing:

2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and replacement of plumbing fixtures, provided such repairs or replacements do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

***The following section is hereby amended to read as follows*:**

R105.5 Expiration. Every permit issued shall expire 18 months after the date of issue unless the project is completed in compliance with this code**.** The building official is authorized to grant, in writing, for justifiable cause demonstrated, a one-time written extension of 18 months at no charge, making the original permit valid for three years. Additional 18-month extensions will cost one-half the amount of the original building permit fee or a minimum of $50, whichever is more. Every permit shall become null and void if the building or work authorized by such permit is not commenced within 180 days from the date of issue of such permit, if the person or entity to whom the

permit is issued fails to request a first inspection within 180 days of the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days or more. Before such work can be recommenced, a new permit shall be first obtained to do so. The fee for such new permit shall be one-half of the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work and provided further that the suspension or abandonment has not exceeded one year. Changes in the plans and specifications or abandonment exceeding one year shall require an additional permit fee and plan review fee as described in Section R108. Permits for "as-built" construction must have final inspection approval within 180 days of permit issuance. The building official is authorized to grant a one-time extension of twelve months for "as-built" permits, at no charge, provided evidence of progress towards final inspection or justifiable cause is shown.

The following section is hereby added to read in its entirety as follows:

R105.10 Premises Identification During Construction. The approved permit number and street address number shall be displayed and be plainly visible and legible from the public street or road fronting the property on which any new building is being constructed.

The following section is hereby amended to read as follows:

R106.1.3 Information on braced wall design. For buildings and structures utilizing braced wall design, braced wall lines shall be identified on the construction documents. Pertinent information including, but not limited to, bracing methods, location and length of braced wall panels and foundation requirements of braced wall panels at top and bottom shall be provided.

***The following section is hereby amended by deleting item #3 and renumbering and amending #4 to read as follows*:**

R106.1.4 Information for construction in flood hazard areas. For buildings and structures located in whole or in part in flood hazard areas as established by the Larimer County Land Use Code, construction documents shall include:

1. Delineation of flood hazard areas, floodway boundaries and flood zones and the design flood elevation, as appropriate.
2. The elevation of the proposed lowest floor, including basement; in areas of shallow flooding (AO zones), the height of the proposed lowest floor, including basement, above the highest adjacent grade.
3. If design flood elevations are not included on the county's Flood Insurance Rate Map (FIRM), the county engineer and the applicant shall obtain and reasonably utilize any design flood elevation and floodway data available from other sources.

The following section is hereby amended to read as follows:

R106.3.1 Approval of construction documents. Where the *building official* issues a *permit*, the construction documents shall be approved in writing, electronically, or by a stamp. One set of construction documents so reviewed shall be retained by the building official. The other set shall be returned to the applicant, with an approved hard copy kept at the site of work and open to inspection by the building official or a duly authorized representative.

***The following section is hereby added to read as follows*:**

R106.6 Expiration of Plan Review. Applications for which no permit is issued within one hundred and eighty (180) days following the date of application shall expire by limitation; plans submitted for review may thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding ninety (90) days upon written request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken. In order to renew action on an expired application, the applicant shall resubmit plans and pay a new plan review fee.

***The following section is hereby amended to read as follows*:**

R107.1 General. The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service but shall not be permitted for more than 18 months. The building official is authorized to grant extensions for demonstrated cause.

***The following section is hereby added to read as follows*:**

R108.7 Re-inspections. A re-inspection fee may be assessed for each inspection or re-inspection when access to the work is not provided on the date for which inspection is requested, a readily visible address is not posted, the inspection record card is not posted or otherwise available on site, the approved plans are not readily available in a visible location for the inspector, such portion of work for which inspection is called for is not complete, corrections called for are not made, work deviates from plans approved by the building official, or for other good and sufficient cause as determined by the building official. To obtain a re-inspection, the applicant shall pay the re-inspection fee in accordance with the adopted Larimer County fee schedule. When re-inspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

The following section is hereby added to read as follows:

109.1.1.1 Underground inspection. Underground and underslab inspections shall be made after trenches or ditches are excavated and bedded, piping, tubing, ducts, and electrical wiring is installed, before backfill is put in place and before concrete is placed. Where excavated soil contains rocks, broken concrete, frozen chunks, and other rubble that would damage or break the piping or cause corrosive action, clean backfill shall be on the job site.

The following section is hereby added to read as follows:

109.1.1.2 Energy efficiency inspections. Inspections shall be made to determine compliance with Chapter 11 and shall include, but not be limited to, inspections for footing, foundation, slab and thermal envelope insulation *R-* and *U-values*, fenestration U-value, duct system R-value, HVAC and water-heating equipment efficiency, air sealing, plumbing protection, lighting system controls, components and meters, and installation and proper operation of all required building controls.

The following section is hereby amended to read as follows:

R109.1.2 Plumbing, mechanical, gas and electrical systems inspection. Rough inspection of plumbing, mechanical, gas and electrical systems shall be made prior to covering or concealment, before fixtures or appliances are set or installed, and prior to or concurrent with framing inspection.

Exception: Backfilling of ground-source heat pump loop systems tested in accordance with Section M2105.28 prior to inspection shall be permitted.

The following section is hereby amended to read as follows:

R109.1.3 Floodplain inspections. For construction in flood hazard areas as established by the Larimer County Land Use Code, upon placement of the lowest floor, including basement, and prior to further vertical construction, the building official and/or the County Engineer may require submission of documentation, prepared and sealed by a registered professional land surveyor or design professional, of the elevation of the lowest floor, including basement, required in Section R322.

The following section is hereby amended to read as follows:

R109.1.4 Frame and masonry inspection. Inspection of framing and masonry construction shall be made after the roof, masonry, framing, firestopping, draftstopping and bracing are in place and after the plumbing, mechanical, gas, radon mitigation and electrical rough-installations are completed and prior to concealment.

***The following section is hereby amended to read as follows*:**

R110.1 Use and change of occupancy. A building or structure shall not be used or occupied in whole or in part, and a change of occupancy of a building or structure or portion thereof shall not be made, until the building official has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Certificates presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid.

Exceptions:

1. Certificates of occupancy are not required for work exempt from permits under Section R105.2.
2. Cabins, agricultural and accessory buildings or structures, and work authorized under miscellaneous permits shall not receive certificates of occupancy; a letter of completion will be issued upon request.

***The following section is hereby amended to read as follows*:**

R110.3. Temporary occupancy. The building official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely. A Temporary Certificate of Occupancy (TCO) shall be valid for 180 days. The fee for a TCO shall be in accordance with the fee schedule as established by Larimer County**.** The building official may grant additional TCOs for justifiable cause.

***The following section is hereby amended to read as follows*:**

R112.4 Administration. To appeal a written determination of the building official to the Board of Appeals, a written appeal must be received by the Larimer County Building Division within thirty (30) days of the date of the determination being appealed. The appellant shall, at the time of making such appeal, pay to the Larimer County Building Division a docket fee as specified in the Larimer County fee schedule. The Larimer County Building Division shall send written notice of hearing to all parties concerned at least fourteen (14) days prior to the hearing by mailing the same to such parties' last known address by regular mail. The building official shall take action without delay in accordance with the decision of the Board of Appeals. All meetings or hearings shall be open to the public. The Board of Appeals may, from time to time, adopt such additional rules and regulations as it deems necessary and advisable for the conduct of its hearings and for carrying out the provisions hereof.

Chapter 2 – Definitions

***The following section is hereby amended by adding or amending these terms to read in alphabetical order as follows*:**

R202 DEFINITIONS

CABIN. A structure that contains at least one habitable room for living, sleeping, eating, or cooking that lacks one of the following: an approved electrical system, an approved sanitation system, a potable water system, a water heater, or a primary heat source. A cabin shall comply with all requirements in this code applicable to dwelling units, except requirements for utilities or services not installed.

FIREPLACE INSERT. A woodburning device designed to be installed in an existing fireplace.

INTERNATIONAL FIRE CODE. The International Fire Code as adopted, amended, and administered by and within a fire district.

NON-RESTRICTED AREA. That part of unincorporated Larimer County located west of Range 71, or north of the north half of Township 10 and east of Range 72 as shown on the Larimer County Fireplace Area Map.

PRIMARY HEAT SOURCE. A permanent heating system capable of maintaining room temperatures at 68 degrees Fahrenheit at a point three feet above the floor and two feet from exterior walls in all habitable rooms at all times, even when the structure is unoccupied.

RESORT LODGE COTTAGES – A building or group of buildings, under single management and ownership, containing rooms and/or dwelling units available for temporary rental to guests where the primary attraction is generally recreational features or activities.

RESTRICTED AREA. That part of unincorporated Larimer County located outside the Non-restricted Area as shown on the Larimer County Fireplace Area Map.

SHORT-TERM RENTAL. A dwelling constructed in compliance with the scoping requirements of this code, where transient accommodations are provided for a single group of ten or fewer occupants and where rooms may not be individually rented to guests who are not part of the group.

SLEEPING LOFT. A space designated for sleeping on an intermediate level or levels between the floor and ceiling of a story, and open on one or more sides to the room in which the space is located.

SOLIDLY SHEATHED DECK. A roof deck with gaps between planks or sheathing not exceeding 1/8 inch (3.18 mm).

TRANSIENT. Occupancy of a dwelling unit or sleeping unit for not more than 30 days.

WOODSTOVE. An appliance designed for or capable of burning wood and capable of and intended for domestic space heating or domestic water heating.

Chapter 3 – Building Planning

***The following table is hereby amended to read as follows*:**

TABLE R301.2 CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

(These criteria shall be used for mechanical load calculations and designs.)

Ground Snow Load[d] (P_g)	Wind Design				Seismic Design Category	Subject to Damage from		
	Speed [a] (mph)	Topographic effects	Special Wind Region	Windborne debris zone		Weathering	Frost Line Depth	Termite
35psf≤5000' 45psf≤6000' 50psf≤6500' 60psf≤7000' 70psf≤8000' 100psf≤9000' 140psf≤10000' ***Engineered design is required over 8,000'***	115-225 mph Ultimate Design Wind Speed V_{ult}	YES	YES	NO	B	Severe	30 inches	Slight to Moderate

Ice Barrier Underlayment Required	Flood Hazards [c]	Air Freezing Index [b]	Mean Annual Temperature [b]
YES	(a) 1973 (b) Feb. 6, 2013 (c) Panels 08069C0025 through 08069C1420	906 in the Front Range 926 in the foothills & mountains	43.2 F

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447m/s.

MANUAL J DESIGN CRITERIA[b]						
Elevation	**Altitude Correction Factor**	**Summer Design wet blub**	**Indoor Winter Design Relative Humidity**	**Indoor winter design dry-bulb temperature**	**Outdoor winter design dry-bulb temperature**	**Heating Temperature Difference**
4,790 to 13,573	varies with elevation	62° F	30%	72° F	0° F Estes Park, 4° F Front Range	68° F
Latitude	**Climate Zone**	**Daily Range**	**Indoor summer design relative humidity**	**Indoor summer design dry-bulb temperature**	**Outdoor summer design dry-bulb temperature**	**Cooling Temperature Difference**
40° 15' to 40° 59' North	5B	High (H)	50%	75° F	91° F	16° F

Footnotes to Table 301.2 are hereby amended to read as follows:

a. The Ultimate Design Wind Speed (V_{ult}) for the determination of site wind loads shall comply with the Colorado Front Range Gust Map – ASCE 7-10 Compatible, published by the Structural Engineers Association of Colorado (dated November 8, 2013) or the Larimer County Ultimate Design Wind Speed Map. Wind Load design values shall be determined from Section 1609 of the IBC. Wind exposure category shall be Exposure C unless designated otherwise by the design professional based on site-specific conditions and approved by the building official.

b. Alternative design criteria based on site-specific climate and weather data may be used when proposed by the *registered design professional* and approved by the *building official*.

c. This part of the table contains: (a) the date of Larimer County's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas; (b) the date(s) of the Flood Insurance Study; and (c) the panel numbers and dates of the currently effective FIRMs and FBFMs or other flood hazard map adopted by Larimer County, as amended.

d. The design ground snow load P_g shall comply with this column or the Colorado Design Snow Loads report, published by the Structural Engineers Association of Colorado (dated April, 2016). The design roof snow load values shall be determined from Chapter 7, ASCE 7-22, including all applicable factors, and loading and drifting considerations. In no case shall the final design roof snow load be less than a uniformly distributed load of 30 psf, except greenhouses may take full load reductions allowed per ASCE 7. Loafing sheds and pole barns may be constructed per Larimer County Prescriptive Design Standards.

The following section is hereby amended to read as follows:

R301.2.1 Wind design criteria. Buildings and portions thereof shall be constructed in accordance with the wind provisions of this code using the ultimate design wind speed in Table R301.2 as determined in accordance with the Colorado Front Range Gust Map – ASCE 7-10 Compatible, published by the Structural Engineers Association of Colorado (dated November 8, 2013). The structural provisions of this code for wind loads are not permitted where wind design is required as specified in Section R301.2.1.1. Where different construction methods and structural materials are used for various portions of a building, the applicable requirements of this section for each portion shall apply. Where not otherwise specified, the wind loads listed in Table R301.2.1(1) adjusted for height and exposure using Table R301.2.1(2) shall be used to determine design load performance requirements for wall coverings, curtain walls, roof coverings, exterior windows, skylights, garage doors and exterior doors. Asphalt shingles shall be designed for wind speeds in accordance with Section R905.2.4. Metal roof shingles shall be designed for wind speeds in accordance with Section R905.4.4. A continuous load path shall be provided to transmit the applicable uplift forces in Section R802.11 from the roof assembly to the foundation.

The following section is hereby amended to read as follows:

R301.2.1.1 Wind limitations and wind design required.

The wind provisions of this code shall not apply to the design of buildings where the ultimate design wind speed, V_{ult}, as determined in accordance with Section R301.2.1 equals or exceeds 140 miles per hour (225 kph).

Exceptions:

1. For concrete construction, the wind provisions of this code shall apply in accordance with the limitations of Sections R404 and R608.
2. For structural insulated panels, the wind provisions of this code shall apply in accordance with the limitations of Section R610.
3. For cold-formed steel light-frame construction, the wind provisions of this code shall apply in accordance with the limitations of Sections R505, R603 and R804.

Where the ultimate design wind speed, V_{ult}, as determined above equals or exceeds 140 miles per hour (225 km/h), the design of buildings for wind loads shall be in accordance with one or more of the following methods:

1. AWC Wood Frame Construction Manual (WFCM).
2. ICC Standard for Residential Construction in High-Wind Regions (ICC 600).
3. ASCE Minimum Design Loads for Buildings and Other Structures (ASCE 7).
4. AISI Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings (AISI S230).
5. International Building Code.
6. Larimer County Prescriptive Design Standards for Pole Barns in High Wind Areas.
7. Larimer County Prescriptive Design Standards for Loafing Sheds.
8. Any other Prescriptive Design Standards for High Wind or Heavy Snow Areas subsequently issued by Larimer County.

The elements of design not addressed by the methods in Items 1 through 8 shall be in accordance with the provisions of this code.

Where ASCE 7 or the International Building Code is used for the design of the building, the Colorado Front Range Gust Map – ASCE 7-10 Compatible, published by the Structural Engineers Association of Colorado (dated November 8, 2013), and exposure category requirements as specified in ASCE 7 and the International Building Code shall be used.

The following map is hereby deleted in its entirety:

Figure R301.2(2) - Ultimate Design Wind Speeds

The following section is hereby amended to read as follows:

R301.2.3 Snow loads. Ground snow loads shall be determined in accordance with Section 1608 of the International Building Code. Wood-framed construction, cold-formed, steel-framed construction and masonry and concrete construction, and structural insulated panel construction in regions with allowable stress design ground snow loads, p_g(asd), 70 pounds per square foot (3.35 kPa) or less, shall be in accordance with Chapters 5, 6 and 8. Buildings in regions with allowable stress design ground snow loads, p_g(asd), greater than 70 pounds per square foot (3.35 kPa) shall be designed and stamped by a licensed Colorado professional engineer in accordance with accepted engineering practice.

The following map is hereby deleted in its entirety:

Figure R301.2(3) - Allowable Stress Design Ground Snow Loads, P_g(asd) for the United States (lb/ft^2)

***The following section is hereby amended to read as follows*:**

R302.1 Exterior walls. Construction, projections, openings and penetrations of *exterior walls* of *dwellings, townhouses* and accessory buildings shall comply with Table R302.1 (1) based on *fire separation distance*; or *dwellings* and *townhouses* equipped throughout with an *automatic sprinkler system* installed in accordance with Section P2904 shall comply with Table R302.1 (2) based on *fire separation distance.*

For the purposes of determining *fire separation distance, dwellings* and *townhouses* on the same lot shall be assumed to have an imaginary line between them. Where a new *dwelling* or *townhouse* is to be erected on the same lot as an existing *dwelling* or townhouse, the location of the assumed imaginary line with relation to the existing dwelling or townhouse shall be such that the existing *dwelling* or *townhouse* meets requirements of this section.

Where a lot line exists between adjacent *townhouse* units, *fire separation distance* of exterior walls shall be measured to the lot line. Where a lot line does not exist between adjacent *townhouse* units, an imaginary line shall be assumed between the adjacent *townhouse* units and *fire separation distance* of exterior walls shall be measured to the imaginary line. Fire separation distance and requirements of Section R302.1 shall not apply to walls separating *townhouse* units that are required by Section R302.2.

Exceptions:

1. Walls, projections, openings, or penetrations in walls perpendicular to the line used to determine the *fire separation distance*.
2. Walls of individual *dwelling units* and their accessory structures located at least six feet (1.8 m) apart on the same lot.
3. Detached tool sheds and storage sheds, playhouses 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.
4. Foundation vents installed in compliance with this code are permitted.

***The following Table is hereby amended in its entirety to read as follows*:**

Table R302.1 (1) Exterior Walls

TABLE R302.1 (1) EXTERIOR WALLS			
EXTERIOR WALL ELEMENT		**MINIMUM FIRE-RESISTANCE RATING**	**MINIMUM FIRE SEPARATION DISTANCE**
Walls	Fire-resistance rated	1 hour-tested in accordance with ASTM E119, UL 263 or Section 703.2.2 of the International Building Code with exposure from both sides	0 feet
	Not fire resistance rated	0 hours	≥3 feet
Projections	Not allowed	NA	< 2 feet
	Fire-resistance rated	1 hour on the underside, or heavy timber, or fire-retardant treated wood a, b	>2 feet to <3 feet
	Not fire resistance rated	0 hours	>3 feet
Openings in walls	Not allowed	NA	< 3 feet
	Unlimited	0 hours	≥3 feet
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	≥3 feet

For SI: 1 foot = 304.8 mm. NA = Not Applicable.

a. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave overhang if fireblocking is provided from the wall top plate to the underside of the roof sheathing.
b. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the rake overhang where vent openings that communicate with the attic are not installed in the overhang or gable wall.

***The following Table is hereby amended by deleting footnote a and renumbering footnotes b and c to read as follows*:**

Table R302.1 (2) Exterior Walls – Dwellings with Fire Sprinklers

a. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave overhang if fireblocking is provided from the wall top plate to the underside of the roof sheathing.
b. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the rake overhang where gable vent openings are not installed.

The following section is hereby amended to read as follows:

R302.5.1 Opening protection. Openings from a private garage, barn or similar utility space directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage, barn or similar utility space and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors. Doors shall be self-latching and equipped with a self-closing or automatic-closing device.

***The following section is hereby amended to read as follows*:**

R302.6 Residential space garage/barn/utility space fire separation. The garage, barn or similar utility space shall be separated as required by Table R302.6. Openings in such walls shall comply with Section R302.5. Attachment of gypsum board shall comply with Table R702.3.5. This provision does not apply to walls of utility spaces that are perpendicular to the adjacent *residential space* wall.

***The following section is hereby amended to read as follows*:**

TABLE R302.6 RESIDENTIAL SPACE - GARAGE/BARN/UTILITY SPACE SEPARATION

SEPARATION	MATERIAL
From the residential space and attics	Not less than 1/2-inch gypsum board or equivalent applied to the utility space side
From portions of the residential space above the utility space	Not less than 5/8-inch Type X gypsum board or equivalent
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent
Garages/barns/utility buildings located less than 6 feet from a residential space on the same lot [a]	Not less than 1/2-inch gypsum board or equivalent applied to the interior side of exterior walls and roof/ceiling assemblies that are within this area

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Garages, barns, and similar utility buildings exceeding 5,000 sq. ft. (464.5 m^2) in floor area shall comply with Section R302.6.1

The following section is hereby added to read as follows:

R302.6.1 Private garages, barns and similar utility buildings exceeding 5,000 sq. ft. (464.5 m^2) in floor area within 6' (1.8 m) at any point from a residential space on the same lot shall be separated from the dwelling by 1-hour fire-rated wall, roof and soffit construction.

The following section is hereby amended in its entirety to read as follows:

R302.13 Fire protection of floors above fuel-burning appliances. In new construction or a new location for an appliance, where fuel-fired heating or water-heating appliances are installed below a combustible floor, floor assemblies that are not required elsewhere in this code to be fire-resistance rated shall be provided with a minimum ½ inch (12.7 mm) gypsum wallboard membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member. Penetrations or openings for ducts, vents, electrical outlets, lighting, devices, luminaires, wires, speakers, drainage, piping and similar openings or penetrations shall be permitted.

Exceptions:

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA 13D, or other approved equivalent sprinkler system.
2. Floor assemblies located above direct vent appliances with both intake and exhaust pipes installed continuously to the outside.
3. Portions of floor assemblies shall be permitted to be unprotected where complying with all of the following:
   - 3.1. The appliances are enclosed in a framed mechanical room with no less than ½" (12.7 mm) gypsum wallboard or the equivalent installed on the ceiling and walls. Clearances to combustible materials and for appliance access and service, as specified in this code and the manufacturer's installation instructions, shall be maintained.
   - 3.2. The aggregate area of the room does not exceed 80 square feet (7.4 m^2) per story.
   - 3.3. Fireblocking in accordance with Section R302.11.1 is installed along the perimeter of the mechanical room.
   - 3.4. The room is insulated and sealed in accordance with Section N1102.4.4.
   - 3.5. Openings from a mechanical room directly into a room used for sleeping purposes are prohibited. Other openings shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors. Doors shall be self-latching and equipped with a self-closing or automatic-closing device.
4. Wood floor assemblies using dimension lumber or *structural composite lumber* equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other *approved* floor assemblies demonstrating equivalent fire performance.
5. Wood floor assemblies less than 600 square feet (55.7 m^2) within detached accessory structures with no habitable space above them.

R306.1 General. Buildings and structures constructed in whole or in part in flood hazard areas established in the Larimer County Land Use Code, and substantial improvement and repair of substantial damage of buildings and structures located in whole or in part in flood hazard areas, shall be designed and constructed in accordance with the provisions contained in the Larimer County Land Use Code.

***The following section is hereby amended in its entirety to read as follows*:**

R309.2 One- and two-family dwellings automatic sprinkler systems. An automatic sprinkler system shall be installed in one-family dwellings within the Estes Valley and Lyons Fire Protection Districts and any other Fire Protection District designated by the Larimer County Board of County Commissioners, and in two-family dwellings.

Exception: An automatic sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with a sprinkler system.

The following section is hereby amended by deleting exception #2 to read as follows:

R310.2.2 Alterations, repairs and additions. Where alterations, repairs or additions requiring a permit occur, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

Exception: Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of a porch or deck.

The following section is hereby amended by adding an Exception to read as follows:

R310.4 Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R310.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Smoke alarms required for installation, alteration or repairs of plumbing or mechanical systems need not be interconnected.

The following section is hereby amended to read as follows:

R311.2.1 New construction. For new construction, carbon monoxide alarms shall be provided in *dwelling units* where either or both of the following conditions exist.

1. The *dwelling unit* contains a fuel-fired *appliance.*
2. The *dwelling unit* has an attached garage.

The following section is hereby amended by deleting Exceptions #2 and #3 to read as follows:

R311.2.2 Alterations, repairs and additions. Where alterations, repairs or additions requiring a permit occur, or where one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with carbon monoxide alarms located as required for new dwellings.

Exception: Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of a porch or deck.

The following section is hereby amended by adding Exception #2 to read as follows:

R311.5 Interconnectivity. Where more than one carbon monoxide alarm is required to be installed within an individual dwelling unit in accordance with Section R315.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exceptions:

1. Interconnection of carbon monoxide alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available that could provide access for interconnection without the removal of interior finishes.
2. Carbon monoxide alarms required for installation, alteration, or repairs of plumbing or mechanical systems.

The following section including exceptions is hereby amended to read as follows (the exceptions are unchanged):

R319.1 Emergency escape and rescue opening required. Basements, habitable attics, the room to which a sleeping loft is open, habitable lofts and mezzanines, and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court having a minimum width of 36 inches (914 mm) that opens to a public way.

The following section is hereby amended to read as follows:

R319.2.2 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening, with casement windows measured when open perpendicular to the exterior wall.

The following section is hereby amended to read as follows:

R319.7.1 Existing emergency escape and rescue openings. Where a change of occupancy would require an *emergency escape and rescue opening* in accordance with Section 319.1, operable windows serving as the *emergency escape and rescue opening* shall comply with the following:

1. An existing operable window shall provide a minimum net clear opening of 5 square feet (0.46 m^2) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm).
2. A replacement window where such window complies with both of the following:
   2.1. The replacement window meets the size requirements in Item 1.
   2.2. The replacement window is the manufacturer's largest standard-size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

***The following section is hereby amended to read as follows*:**

R325.8 Required heating. Every dwelling unit shall be provided with a primary heat source capable of maintaining a room temperature of not less than 68ºF (20ºC) at a point three feet (914 mm) above the floor and two feet (610 mm) from exterior walls in all habitable rooms at the design temperature. The installation of one or more portable space heaters shall not be used to achieve compliance with this section.

The following section is hereby added to read as follows:

R325.9 Exterior Lighting. New and replacement exterior luminaires shall be fully shielded so that the lighting element is not visible to an observer at any point on or beyond any property line of the lot. Luminaires shall have a cut-off with an angle not exceeding 90º from vertical. Building-mounted fixtures shall not be mounted higher than 20' in height. Exterior light fixtures shall generate at least 80 lumens per watt of energy consumed as shown on the manufacturer's specifications. Exterior lighting controls shall comply with Section N1104.3.

The following section is hereby added to read as follows:

R333 RADON MITIGATION

R333.1 Passive radon mitigation system required. All new dwellings, and additions with a footprint exceeding 1,000 sq. ft., shall install a passive radon mitigation system. Such systems shall be designed and installed in accordance with Appendix BE "Radon Control Methods."

The following section and all subsections are hereby added to read as follows:

R334 SHORT-TERM RENTALS

R334.1 General. *Short-term rentals* shall comply with Sections R334.1.1 through R334.3. *Resort lodge cottages* not exceeding 10 occupants and owner-occupied lodging houses not exceeding five guest rooms shall comply with Sections R334.1.1 through R334.2.15 and R334.3.

R334.1.1 Automatic fire sprinkler systems. An automatic sprinkler system shall be designed and installed in accordance with Section P2904 or NFPA 13D in *short-term rentals* in buildings constructed under this code.

Exception:

An automatic sprinkler system shall not be required for conversions to short-term rentals of buildings legally constructed under building codes prior to the 2021 International Residential Code, that are not already provided with a sprinkler system.

R334.2 Life safety inspection. *Short-term rentals,* owner-occupied lodging houses and resort lodge cottages shall not be approved for occupancy until a building permit is issued to convert the dwelling to its new use, the life safety inspection and all other required inspections pass, and a Certificate of Occupancy is issued. *Short-term rentals* life safety inspections shall include the provisions of R334.2.1 through R334.2.25.

R334.2.1 Address identification. Approved address identification shall be posted in compliance with the code in effect at the time of the initial survey.

R334.2.2 Unapproved uses. Uses of all rooms/spaces shall comply with approved uses per Building Division records. Change of use permits, inspections and approvals shall be required for all rooms with uses different from Building Division records.

R334.2.3 Unpermitted work. All unpermitted work shall be permitted, compliant and approved.

R334.2.4 Unapproved work. All unapproved work authorized by permits which have expired shall be re-permitted, compliant, and approved.

R334.2.5 Structural concerns. Observable structural concerns shall be corrected or mitigated.

R334.2.6 Emergency escape and rescue openings. Compliant emergency escape and rescue openings shall be provided for all spaces used for sleeping purposes. For dwellings constructed on or after January 1, 1972, rescue openings shall comply with the code in effect at the time the rescue opening was required. For dwellings constructed prior to January 1, 1972, the minimum requirements shall be those found in the 1970 Uniform Building Code.

R334.2.7 Window wells. Where required, compliant window wells shall be properly installed at emergency escape and rescue openings. For dwellings constructed on or after January 1, 1972, window wells shall comply with the code in effect at the time the well was required. For dwellings constructed prior to January 1, 1972, window wells shall meet the minimum requirements of the 1970 Uniform Building Code.

R334.2.8 Smoke alarms. Approved smoke alarms shall be properly installed at all locations in accordance with Section R310, their listing and manufacturer's installation instructions.

R334.2.9 Carbon monoxide alarms. Approved carbon monoxide alarms shall be properly installed at all locations in compliance with Section R311, their listing and manufacturer's installation instructions.

R334.2.10 Fuel gas appliances.

a. Fuel gas appliances shall be in approved locations.
b. Fuel gas appliances shall be in dedicated spaces, where applicable.
c. Fuel gas appliances shall comply with required clearances.
d. Fuel gas appliances shall be provided with required combustion air.
e. Fuel gas appliances shall be connected to approved venting systems.
f. Fuel gas appliances shall have required temperature and pressure relief valves.
g. Fuel gas appliances shall have proper condensate disposal.
h. Rooms/spaces containing fuel gas appliances shall be properly fireblocked.
i. Other than existing cook tops, no ventless fuel gas appliances are allowed.

R334.2.11 Dwelling/garage separation. Dwellings shall be separated from garages and similar utility spaces per Section R302.6.

R334.2.12 Handrails. Approved handrails shall be properly installed at locations in compliance with Section R320.

R334.2.13 Guards. Approved guards shall be properly installed at locations in compliance with Section R321.

R334.2.14 Ground-Fault Circuit-Interrupter Protection. Ground-fault circuit-interrupter protection for personnel shall be provided in locations in compliance with the National Electrical Code.

R334.2.15 Exterior lighting. All exterior lighting fixtures shall comply with Section R325.9.

R334.2.16 Environmental duct terminations. Dryer ducts and exhaust fans shall terminate at approved locations in accordance with Chapter 15.

R334.2.17 Cook stove. Anti-tip devices shall be installed for all cook stoves, ovens, and ranges.

R334.2.18 Wildfire hazard. Wildfire defensible spaces shall be provided and maintained as required for new construction.

R334.2.19 Solid fuel-burning exterior appliances. Solid fuel-burning exterior appliances including but not limited to fire pits, outdoor fireplaces, portable outdoor fireplaces, and barbecue grills, shall not be installed. Existing solid fuel-burning exterior appliances shall be locked, altered, or removed, so that they cannot be used by transient renters.

R334.2.20 Lighting at exterior stairs. Exterior stairs shall be properly illuminated in compliance with Section 325.7.

R334.2.21 Septic Systems. Dwellings utilizing septic systems require approval from the Larimer County Department of Health and Environment for the proposed number of occupants.

R334.2.22 Stove-top fire stop. An automatic fire-extinguishing system or alternative system *approved* by the County Building Official shall be installed above or adjacent to each stove, range, or cooktop, in accordance with the fire-extinguishing system manufacturer's installation instructions.

Exception: Stove-top fire stops are not required where an automatic fire sprinkler system in accordance with NFPA 13D or Section P2904 standards is installed throughout the dwelling unit.

R334.2.23 Portable fire extinguishers. Portable dry chemical-type fire extinguishers with a minimum rating of 2-A:10-B:C shall be mounted securely, on a hanger or bracket intended for the extinguisher by the manufacturer, in a conspicuous location where they will have ready access and be immediately available for use in the following locations:

1. In each room with a cooking appliance, fireplace, heating appliance or water heater. Portable fire extinguishers may be installed outside of and in the immediate vicinity of mechanical closets for water heating or space heating appliances.
2. Inside and adjacent to the door leading to a deck, porch, patio, or similar outdoor space with such appliances.
3. At least one on each story.

Exception: Fire extinguishers are not required where an automatic fire sprinkler system in accordance with NFPA 13D or Section P2904 standards is installed throughout the dwelling unit. If sprinkler coverage is not provided at outdoor spaces containing cooking, heating or water heating appliances, fire extinguishers shall be installed per Item #2.

R334.2.24 Operations Manual. An operations manual shall be provided in a readily visible location such as the kitchen counter or land-line phone. At a minimum, the manual shall contain the following items:

1. the address, GPS coordinates and phone number of the short-term rental.
2. exit mapping from each habitable room in the house.
3. a map of escape routes from the neighborhood to a public road.
4. contact information for and a copy of current registration with the Fire Department having jurisdiction, as well as contact information for Police/sheriff and ambulance service.
5. contact information for a short-term rental owner or manager with a response time of 60 minutes or less.
6. the location of and instructions for emergency shutoff of water, gas, and electrical systems.
7. information on the stove-top firestop and fire extinguishers.
8. information on Wildfire Hazard Area concerns.
9. the location of property lines and instructions to prevent trespass on neighboring properties.
10. instructions on safe interaction with wildlife, trash disposal and noise considerations.

R334.2.25 Signs posted at each entrance and exit. A sign containing the information noted in Section R334.2.24 items 1 through 5 shall be posted at each entrance and exit of the home.

R334.3 Certificate of Occupancy. After a life safety inspection has been approved and no known code violations exist, the Building Official shall issue a Certificate of Occupancy for use as a *short-term rental,* owner-occupied lodging house or resort lodge cottage. In addition to other requirements, Certificates of Occupancy for s*hort-term rentals*, owner-occupied lodging houses and resort lodge cottages shall specify the number of rooms approved for sleeping purposes and the maximum approved occupant load.

Chapter 4 – Foundations

***The first two sentences in the following section are hereby amended to read as follows*:**

R401.1 Application. The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for buildings. In addition to the provisions of this chapter, the design and construction of foundations in areas prone to flooding as established by the Larimer County Land Use Code shall meet the provisions of the Larimer County Land Use Code. Wood foundations shall be designed and installed in accordance with AWC PWF. All foundations shall be designed by a qualified professional licensed in the State of Colorado, in accordance with accepted and approved engineering practices, including considerations for soil load- bearing capacities, surface and subsurface water conditions, adequate foundation and floor drainage, adequate ventilation of enclosed interior foundation spaces, and foundation waterproofing and damp-proofing.

Exceptions:

1. In subdivisions where engineered footings and foundations are not required by the conditions of approval.
2. Outside of subdivisions where engineered design is not required by Sections R403.1.7 or R403.1.8.

3. Unenclosed patio covers and porches, decks, one-story agriculture pole buildings under 3000 square feet (278.7 m^2), and accessory, unheated, detached one-story utility buildings with a maximum depth (truss length) of 24 feet (7.32 m), a maximum width not exceeding twice the depth, and a maximum area of 600 square feet (55.7 m^2), when following Larimer County's prescriptive design standards.

Exception: The provisions of this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have not more than two floors and a roof.
2. Where interior basement and foundation walls are constructed at intervals not exceeding 50 feet (15,240 mm).

***The following section is hereby amended to add Exception #5 to read as follows*:**

R403.1.4.1 Frost Protection.

Exceptions

5. An unheated, one-story accessory building may be placed on a slab-on-grade cast monolithically with a footing placed at least 12 inches (9305 mm) below the undisturbed ground with one No. 5 bar or two No. 4 bars located in the middle of the footing depth. Such accessory building shall have a maximum depth (truss length) of 24 feet (7.31 m), a maximum width not exceeding twice the depth, a maximum area of 600 square feet (55.7 m^2) and shall be equipped with a controlled method of water disposal from roofs in accordance with section R801.3.

The following section is hereby amended in its entirety to read as follows:

R403.1.8 Foundations on expansive soils. Foundation and floor slabs for buildings located on expansive soils shall be designed in accordance with Section 1808.6 of the International Building Code.

Exception: Slab-on-grade foundation systems may be used for unheated, one-story accessory buildings in accordance with Section R403.1.4.1 Exception 5.

***The following section is hereby amended solely by amending the exceptions to read as follows*:**

R405.1 Concrete or masonry foundations.

Exceptions:

1. A drainage system is not required where determined by the engineer of record that the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group I soils, as detailed in Table R405.1.
2. A drainage system is not required for additions where the existing construction lacks a drainage system to connect to.

***The following section is hereby added to read as follows*:**

R408.3.1 Spaces under below-grade floors. Mechanical ventilation systems for spaces under below-grade floors shall be designed by a professional engineer and installed in accordance with such designs or a mechanical ventilation system for spaces under below-grade floors shall be provided with an active, fan-assisted submembrane depressurization system installed per APPENDIX BE, RADON CONTROL METHODS. In addition, the space above the soil-gas-retarder and below the floor shall be provided with continuously operated mechanical exhaust ventilation at a rate equal to 1 cubic foot per minute (0.47 L/s) for each 50 square feet (4.7 m^2) of underfloor area and either mechanical supply air at the same rate, or an air pathway to the common area (such as a duct or transfer grille).

***The following section is hereby amended to read as follows*:**

R408.7 Flood resistance. For buildings located in flood hazard areas as established in the Larimer County Land Use Code, the design and construction of foundations shall be in accordance with the Larimer County Land Use Code.

Chapter 5 – Floor Construction

The following section is hereby amended to read as follows:

R502.6 Bearing. The ends of each joist, beam or girder shall have not less than 1 1/2 inches (38 mm) of bearing on wood or metal, have not less than 3 inches of bearing (76 mm) on masonry or concrete or be supported by approved joist hangers. The bearing on masonry or concrete shall be direct, or a sill plate of 2-inch-minimum (51 mm) nominal thickness shall be provided under the joist, beam or girder. The sill plate shall provide a minimum nominal bearing area of 48 square inches (30 865 mm2).

The following section is hereby amended to read as follows:

R507.3 Footings. Decks shall be supported on concrete footings or other approved structural systems designed to accommodate all loads in accordance with Section R301. Deck footings shall be sized to carry the imposed loads from the deck structure to the ground as shown in Figure R507.3.

Exceptions:

1. Footings shall not be required for free-standing decks consisting of joists directly supported on grade over their entire length.
2. Footings shall not be required for free-standing decks that meet all of the following criteria:
   2.1. The joists bear directly on precast concrete pier blocks at grade without support by beams or posts.

2.2. The area of the deck does not exceed 200 square feet (18.6 m2).
2.3. The walking surface is not more than 30 inches (762 mm) above grade at any point within 36 inches (914 mm) measured horizontally from the edge.

Chapter 6 – Wall Construction

The following section is hereby amended by deleting Exceptions #2 and #3 to read as follows:

R602.3.1 Stud size, height and spacing. The size, height and spacing of studs shall be in accordance with Table R602.3(5).

Exception: Utility grade studs shall not be spaced more than 16 inches (406 mm) on center, shall not support more than a roof and ceiling, and shall not exceed 8 feet (2438 mm) in height for exterior walls and load-bearing walls or 10 feet (3048 mm) for interior nonload-bearing walls.

The following section is hereby added to read as follows:

R602.5.1 Interior non-bearing walls on movable soils. Where interior non-bearing basement walls are installed on non-structural slabs designed to independently move due to the presence of expansive or collapsible soils, the walls shall be floated with a double bottom plate with a minimum 1.5" gap between them, be attached with a minimum 1½" gap between the top of the walls and the floor/ceiling above, fastened together in *approved* manner, or constructed per the original engineered structural design.

***The following section is hereby amended to read as follows*:**

R610.1 General. Structural insulated panel (SIP) walls shall be designed in accordance with the provisions of this section. Plans for structural insulated panel walls, project drawings, typical details and specifications shall bear the seal of the architect or engineer responsible for design.

Chapter 7 – Wall Covering

The following section is hereby amended to read as follows:

R702.7 Vapor retarders. Vapor retarder materials shall be classified in accordance with Table R702.7(1). A vapor retarder may be provided on the interior side of frame walls of the class indicated in Table R702.7(2), including compliance with Table R702.7(3) or R702.7(4) where applicable. Class I vapor retarders are not allowed on basement foundation walls or any concrete or masonry below grade wall. An approved design using accepted engineering practice for hygrothermal analysis shall be permitted as an alternative. The climate zone for Larimer County, as determined in accordance with Section N1101.7, is 5B.

Exception: Construction where accumulation, condensation or freezing of moisture will not damage the materials.

The following table is hereby amended to read in its entirety as follows:

TABLE R702.7(2) VAPOR RETARDER OPTIONS

CLIMATE ZONE	VAPOR RETARDER CLASS		
	CLASS I[a]	CLASS II[a]	CLASS III
5	Permitted[b]	Permitted[c]	Permitted

a. Vapor retarders with vapor permeance greater than 1 perm when measured by ASTM E96 water method (Procedure B) shall be allowed on the interior side of any frame wall.
b. Use of a Class I interior vapor retarder in frame walls with a Class I vapor retarder on the exterior side shall require an approved design.
c. Where a Class II vapor retarder is used in combination with foam plastic insulating sheathing installed as continuous insulation on the exterior side of frame walls, the continuous insulation shall comply with Table R702.7(4) and the Class II vapor retarder shall have a vapor permeance greater than 1 perm when measured by ASTM E96 water method (Procedure B).

The following section is hereby amended to read as follows:

R703.1 General. Exterior walls shall provide the building with a weather-resistant exterior wall envelope complying with the Colorado Wildfire Resiliency Code. The exterior wall envelope shall include flashing as described in Section R703.4.

The following section is hereby added to read as follows:

R703.11.3 Vinyl siding and soffits on buildings. Vinyl siding and soffits on buildings shall be installed over one-hour fire-rated assemblies listed for exterior fire exposure, in both the vertical and horizontal plane.

The following section is hereby added to read as follows:

R703.13.2 Insulated vinyl siding and soffits on buildings. Insulated vinyl siding and soffits on buildings shall be installed over one-hour fire-rated assemblies listed for exterior fire exposure, in both the vertical and horizontal plane.

The following section is hereby added to read as follows:

R703.14.4 Polypropylene siding on buildings. Polypropylene siding on buildings shall be installed over one-hour fire-rated assemblies listed for exterior fire exposure, in both the vertical and horizontal plane.

Chapter 9 – Roof Assemblies

***The following section is hereby amended to read in its entirety as follows*:**

R902.1 Roofing assemblies. Except as otherwise allowed, roof decks shall be covered with materials listed as Class A and as set forth in Section R904 or with roof coverings as set forth in Section 905. Roof assemblies shall be tested in accordance with ASTM E108 or UL 790 and shall be listed and identified as to class by an approved testing agency. Roof coverings of brick, masonry, slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets, and metal sheets and shingles, shall be considered Class A roof coverings.

The following section is hereby amended to read in its entirety as follows:

R905.1.2 Ice barriers. An ice barrier shall be installed for asphalt shingles, metal roof shingles, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles and wood shakes. The ice barrier shall consist of not fewer than two layers of underlayment cemented together, or a self-adhering polymer-modified bitumen sheet shall be used in place of normal underlayment and extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the exterior wall line of the building. On roofs with slope equal to or greater than 8 units vertical in 12 units horizontal (67-percent slope), the ice barrier shall also be applied not less than 36 inches (914 mm) measured along the roof slope from the eave edge of the building.

Exceptions:

1. Detached accessory structures not containing conditioned floor area
2. Roof recover where the existing roof covering has not been removed.

The following section is hereby added to read as follows:

R905.2.4.2 Impact resistance of asphalt shingles. Asphalt shingles shall be Class 4 impact resistant, tested in accordance with UL 2218, and installed in accordance with the manufacturer's installation instructions.

Exceptions:

1. When an owner wishes to repair or replace existing asphalt shingles that are less than class 4 impact resistant with tiles of a similar color or style, and there are no class 4 impact resistance shingles available of similar color or style, the building official may approve alternate materials that are less than class 4 impact resistant, so long as the replacement shingles are the highest class of impact resistant shingles available that match the color or style of the existing shingles. If no impact resistant materials are available, the building official may approve non-impact resistant materials that meet all other applicable requirements of this Code.
2. For repairs or additions not exceeding 100 sq. ft. to existing asphalt shingles that are less than class 4 impact resistant, the owner may use the same or similar materials regardless of impact resistance of the new shingles.

***The following section is hereby amended to read as follows*:**

R908.1 General. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of this chapter and Section R806 ("Roof Ventilation").

Exceptions:

1. Reroofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section R905 for roofs that provide *positive roof drainage.*
2. For roofs that provide positive drainage, recovering or replacing an existing roof covering shall not require the secondary (emergency overflow) drains or scuppers of Section R903.4.1 to be added to an existing roof.

Chapter 10 – Chimneys and Fireplaces

***The following section is hereby added to read as follows*:**

Section R1001.1.1 Installation

A. All fireplaces installed in the Restricted Area (Figure R1001.1.1 Larimer County Fireplace Area Map) shall be one of the following:
   (i). A gas fireplace or fireplace with a gas log installed and functioning at time of final inspection;
   (ii). An electric device; or
   (iii). A fireplace that meets the most current emissions standards for wood stoves established by the Colorado Air Quality Control Commission, or any other clean-burning device that is approved by the commission.
B. All fireplaces installed prior to January 1, 2002, in the Restricted Area shall be allowed to remain in use until such time as the owner voluntarily replaces it. Upon replacement, such fireplace shall be one of the types specified in Subsection (A) (i), (ii), or (iii).
C. Within the Non-restricted Area, fireplaces including but not limited to masonry and factory-built fireplaces shall be allowed without being required to meet the standards in Subsection (A).

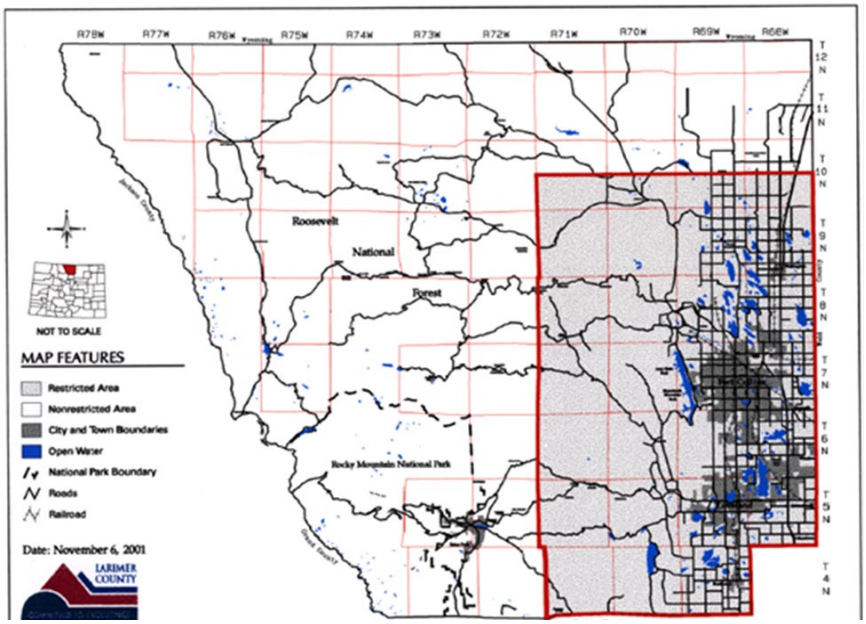
***The following section is hereby amended by adding a new sentence to read as follows*:**

R1004.1 General. Factory-built fireplaces shall be listed and labeled and shall be installed in accordance with the conditions of the listing. Factory-built fireplaces shall be tested in accordance with UL 127. Factory-built fireplaces shall comply with Section R1001.1.1.

***The following section is hereby deleted in its entirety as follows*:**

~~**R1004.4 Unvented gas log heaters.**~~

FIGURE R1001.1.1 Larimer County Fireplace Area Map



Chapter 11 – Energy Efficiency

***The following section is hereby amended to read as follows*:**

N1101.3 (R101.4.1) Compliance materials. The code official shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this chapter. A REScheck compliance certification verifying the home meets or exceeds 2024 International Energy Conservation Code requirements shall be accepted.

The following section is hereby amended by adding Exception #3 to read as follows:

N1102.1 (R402.1) General. The *building thermal envelope* shall comply with the requirements of one of the following:

1. Sections N1102.1.1 through N1102.1.4 and Section N1102.1.6
2. Sections N1102.1.1, N1102.1.5 and N1102.1.6

Exceptions:

1. The following low-energy buildings, or portions thereof, separated from the remainder of the building by *building thermal envelope* assemblies complying with this section, shall be exempt from the *building thermal envelope* provisions of Section N1102.
   1.1 Those with a peak design rate of energy usage less than 3.4 Btu/h × ft^2 (10.7 W/m^2) or 1.0 watt/ft^2 of floor area for space-conditioning purposes.
   1.2 Those that do not contain conditioned space.
2. Log homes designed in accordance with ICC 400.
3. Greenhouses
4. Accessory, utility or agricultural buildings that comply with Section 4.1, 4.2 or 4.3:
   4.1 Heated or cooled in their interior for short periods of time and switched with a timer of two hours or less.
   4.2 Not heated above 50^0 F.
   4.3 Buildings that meet or exceed all the following criteria:
      a. They contain no *habitable space*.
      b. Walls are insulated to a minimum of R-13.
      c. The roof/ceiling is insulated to a minimum of R-24.
      d. Windows and glazing in doors have a maximum U-factor of 0.40 and in total do not exceed 10% of the floor area.
      e. Doors have a minimum R-3 value and are sealed to prevent infiltration.
      f. Any plumbing installed therein is protected from freezing by an *approved* method.

The following section is hereby amended to read as follows:

TABLE N1102.1.2 (R402.1.2) MAXIMUM ASSEMBLY U-FACTORS[a] AND FENESTRATION REQUIREMENTS

Vertical Fenestration U-Factor	Skylight U-Factor	Glazed Vertical Fenestration SHGC	Skylight SHGC	Ceiling U-Factor	Insulation Entirely Above Roof Deck	Wood Framed Wall U-Factor[c]	Mass Wall U-Factor[b]	Floor U-Factor	Basement Wall U-Factor	Unheated Slab F-Factor[e]	Heated Slab F-Factor[e]	Crawl Space Wall U-Factor
0.30[d]	0.50	0.40	0.40	0.026	.0032	0.045	0.082	0.033	0.050	0.51	0.66	0.055

a. Nonfenestration U-factors and F-factors shall be obtained from measurement, calculation or an approved source.
b. Mass walls shall be in accordance with Section N1102.2.6. Where more than half the insulation is on the interior, the mass wall U-factors shall not exceed 0.065 in Climate Zone 5.
c. Class 1 vapor retarders shall not be installed on the interior of framed walls where exterior ci value is less than R-7.5
d. A maximum U-factor of 0.30 shall apply in Climate Zone 5 to vertical fenestration products installed in buildings located either:
   1. Above 4,000 feet in elevation above sea level, or
   2. In windborne debris regions where protection of openings is required by Section R301.2.1.2.
e. F-factors for slabs shall correspond to the R-values of Table N1102.1.3 and the installation conditions of Section N1102.2.10.1.

The following section is hereby amended to read as follows:

TABLE N1102.1.3 *(*R402.1.3) INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

Vertical Fenestration U-Factor	Skylight U-Factor	Glazed Vertical Fenestration SHGC	Skylight SHGC	Ceiling R-Value	Insulation Entirely Above Roof Deck	Wood Framed Wall R-Value[e]	Mass Wall R-Value[f]	Floor R-Value[h]	Basement Wall R-Value[b,e]	Unheated Slab R-Value & Depth[c]	Heated Slab R-Value & Depth [c]	Crawl Space Wall R-Value[b, e]
0.30[g]	.50	0.40	0.40	R-49	30 ci	30 or 20&5ci or 13&10ci or 0&20ci	13/17	30 or 19+7.5 ci or 20 ci	15 ci or 19 or 13&5ci	10ci, 30 in.	R-10ci, 30 in. and R-5 full slab	15ci or 19 or 13&5ci

For SI: 1 foot = 304.8 mm. NR = Not Required. ci = Continuous Insulation

f. R-values are minimums. U-factors and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed R-value of the insulation shall be not less than the R-value specified in the table.
g. “5ci or 13” means R-5 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "10ci or 13" means R-10 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "15ci or 19 or 13&5ci" means R-15 continuous insulation (ci) on the interior or exterior surface of the wall; or R-19 cavity insulation on the interior side of the wall; or R-13 cavity insulation on the interior of the wall in addition to R-5 continuous insulation on the interior or exterior surface of the wall.
h. Slab insulation shall be installed in accordance with Section N1102.2.10.1. Depth shall be 30” (762 mm), to top of footings or to bottom of monolithic slab, whichever is greatest.
i. Class 1 vapor retarders shall not be installed on the interior of framed walls where exterior ci value is less than R-7.5
j. The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, “13&5ci” means R-13 cavity insulation plus R-5 continuous insulation.
k. Mass walls shall be in accordance with Section N1102.2.6. The second R-value applies where more than half of the insulation is on the interior of the mass wall.
l. A maximum U-factor of 0.30 shall apply in Climate Zone 5 to vertical fenestration products installed in buildings located either:
   1. Above 4,000 feet in elevation.
   2. In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the International Residential Code.
m. "30 or 19+7.5ci or 20ci" means R-30 cavity insulation alone or R-19 cavity insulation with R-7.5 continuous insulation or R-20 continuous insulation alone.

The following section is hereby amended to read as follows:

N1102.1.6 (R402.1.6) Rooms containing fuel-burning appliances. In new construction, where open *combustion air ducts* provide *combustion air* to open *combustion* fuel-burning *appliances*, the *appliances* and *combustion air* opening shall be located outside the *building thermal envelope* or enclosed in a room that is isolated from inside the *building thermal envelope*. Such rooms shall be sealed and insulated in accordance with the *building thermal envelope* requirements of Table N1102.1.3, where the walls, floors and ceilings shall meet a minimum of the *basement wall R-value requirement*. The door into the room shall be fully gasketed and any water lines and *ducts* in the room insulated in accordance with Section N1103. The *combustion air duct* shall be insulated where it passes through *conditioned space* to an *R-value* of not less than R-8.

Exceptions:

1. Direct vent *appliances* with both intake and exhaust pipes installed continuous to the outside.
2. *Fireplaces* and stoves complying with Sections N1102.5.2 and Section R1006.
3. Rooms containing *combustion air ducts* not exceeding 4” (102 mm) in diameter.

The following section is hereby amended to read as follows:

N1102.2.5 (R402.2.5) Access hatches and doors. Access hatches and doors from conditioned to unconditioned spaces such as attics and crawl spaces shall be insulated to the same R-value required by Table N1102.1.3 for the wall or ceiling in which they are installed.

Exceptions:

1. Vertical attic entries providing access from conditioned spaces to unconditioned spaces are not required to be a swinging door shall be less than or equal to U-0.10 or have an average insulation R-value of R-10 or greater. If foam plastic insulation is used it shall comply with section R316.5.3.

The reduction shall not apply to the component performance alternative in Section N1102.1.5.

The following section is hereby amended to read as follows:

N1102.2.9.1 (R402.2.9.1) Basement wall insulation installation.

Where basement walls are insulated, the insulation shall be installed from the top of the basement wall down to the basement floor or in accordance with the proposed design or the rated design, as applicable.

The following section is hereby amended to read as follows:

N1102.2.11.1 (R402.2.11.1) Crawl space wall insulation installation. Where installed, *crawl space wall* insulation shall be secured to the wall and extend downward from the sill plate to not less than the top of the foundation wall footing.

Exposed earth in *crawl space* foundations shall be covered with a continuous Class I vapor retarder in accordance with this code. Joints of the vapor retarder shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder shall extend not less than 6 inches (153 mm) up the stem walls and shall be attached to the stem walls and footings pads.

The following section is hereby amended to read as follows:

N1102.2.13 (R402.2.13) Sunroom and heated garage insulation.

Sunrooms enclosing *conditioned space* and heated garages shall meet the insulation requirements of this code.

Exception: For *sunrooms* and heated garages provided with *thermal isolation*, and enclosing *conditioned space*, the following exceptions to the insulation requirements of this code shall apply:

1. The minimum ceiling insulation *R-values* shall be R-24.
2. The minimum wall insulation *R-value* shall be R-13. Walls separating a *sunroom* or heated garage with *thermal isolation* from conditioned space shall comply with the *building thermal envelope requirements* of this code.

The following section is hereby amended to read as follows:

N1102.5.1.1 (R402.5.1.1) Building envelope performance verification. The components of the building thermal envelope as indicated in Table N1102.5.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria indicated in Table N1102.5.1.1, as applicable to the method of construction. An approved third party shall inspect all components and verify compliance in accordance with the following:

1. A review of the construction documents and other supporting data shall be conducted to assess compliance with the requirements in this section.
2. Inspection of continuous air barrier components and assemblies shall be conducted during construction while the air barrier is still accessible for inspection and repair to verify compliance with the requirements of this section and Table N1102.5.1.1.
3. An air barrier and air sealing inspection report shall be provided for inspections completed by the *approved* air leakage testing agency. The air barrier and air sealing inspection report shall be provided to the building owner or owner's authorized agent and the code official at the time of the framing or insulation inspection. The report shall identify deficiencies found during the review of the construction documents and inspection and details of corrective measures taken.

The following section is hereby amended by adding Exceptions #2 and #3 to read as follows:

N1102.5.1.2 (R402.5.1.2) Air Leakage Testing. The building or each dwelling unit or sleeping unit in the building shall be tested for air leakage. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779, ASTM E1827 or ASTM E3158 and reported at a pressure differential of 0.2 inch water gauge (50 Pascals). Testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope have been sealed.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, where installed at the time of the test, shall be open.
4. Exterior or interior terminations for continuous ventilation systems shall be sealed.
5. Heating and cooling systems, where installed at the time of the test, shall be turned off.
6. Supply and return registers, where installed at the time of the test, shall be fully open.

Exceptions:

1. For heated, attached private garages and heated, detached private garages accessory to one- and two-family dwellings and townhouses not more than three stories above grade plane in height, building envelope tightness and insulation installation shall be considered acceptable where the items in Table N1102.5.1.1, applicable to the method of construction, are field verified. An approved third party independent from the installer shall inspect both air barrier and insulation installation criteria. Heated, attached private garage space and heated, detached private garage space shall be thermally isolated from all other conditioned spaces in accordance with Sections N1102.2.13 and N1102.4.5, as applicable.
2. Cabins without a primary heat source are not required to be tested for air leakage.

The following section is hereby amended to read as follows:

N1102.6 (R402.6) Maximum fenestration U-factor and SHGC.

The area-weighted average maximum fenestration U-factor permitted using tradeoffs from Section N1102.1.5, N1105 or N1106 shall be 0.48 in Climate Zones 4 and 5 for vertical fenestration, and 0.75 in Climate Zones 4 through 8 for skylights.

Exception: The maximum U-factor and SHGC for fenestration shall not be required in storm shelters complying with ICC 500.

The following section is hereby deleted in its entirety:

~~**N1103.3.5 (R403.3.5) Ductwork buried within ceiling insulation**~~

The following section is hereby amended to read as follows:

N1103.7 (R403.7) Equipment sizing and efficiency rating. Heating and cooling *equipment* shall be sized in accordance with ACCA Manual S based on *building* loads calculated in accordance with ACCA Manual J or other *approved* heating and cooling calculation methodologies, such that the total sensible capacity of the cooling equipment does not exceed the total sensible load by more than 25% for cooling-only applications, or by more than 40% for heating applications, using the Manual J Design Criteria in Table 301.2. All ducted combination heating and cooling systems shall be sized using cooling loads. New or replacement heating and cooling *equipment* shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the *equipment* is installed.

The following section is hereby deleted in its entirety:

~~**N1104.4 Renewable energy certificate (REC) documentation**~~

Chapter 13 – General Mechanical System Requirements

***The following section is hereby amended to read as follows*:**

M1307.3 Elevation of ignition source. Appliances having an ignition source shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the floor in garages, barns, and similar utility spaces. For the purpose of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate with a private garage through openings shall be considered to be part of the utility space.

Exception: Elevation of the ignition source is not required for appliances that are listed as flammable-vapor-ignition resistant.

Chapter 14 – Heating and Cooling Equipment

The following section is hereby amended to read as follows:

M1401.3 Equipment and appliance sizing. Heating and cooling equipment and appliances shall be sized in accordance with ACCA Manual S or other approved sizing methodologies based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies, such that the total sensible capacity of the cooling equipment does not exceed the total sensible load by more than 25% for cooling-only applications, or by more than 40% for heating applications, using the Manual J Design Criteria in Table 301.2. All ducted combination heating and cooling systems shall be sized using cooling loads. New or replacement heating and cooling equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed.

Exception: Heating and cooling equipment and appliance sizing shall not be limited to the capacities determined in accordance with ACCA Manual S where either of the following conditions applies:

1. The specified equipment or appliance utilizes multistage technology or variable refrigerant flow technology and the loads calculated in accordance with the approved heating and cooling calculation methodology are within the range of the manufacturer's published capacities for that equipment or appliance.
2. The specified equipment or appliance manufacturer's published capacities cannot satisfy both the total and sensible heat gains calculated in accordance with the approved heating and cooling calculation methodology and the next larger standard size unit is specified.

The following section is hereby added to read as follows:

M1401.3.1 Room loads. Room-by-room design heating and cooling loads shall be calculated.

***The following section is hereby amended to read as follows*:**

M1414.1 General. Fireplace stoves shall be listed, labeled and installed in accordance with the terms of the listing. Fireplace stoves shall be tested in accordance with UL 737**.** Wood-burning appliances shall meet the latest emission standards as established by the State of Colorado and Federal Regulation 40 CFR Part 60, Subpart AAA.

Chapter 15 – Exhaust Systems

***The following section is hereby added to read as follows*:**

M1501.2 Indoor depressurization. Ducted exhaust systems shall not induce or create a negative pressure sufficient to cause backdrafting of naturally vented, open combustion-chamber, fuel-burning appliances, or create negative pressure in excess of negative 3 Pa. in the immediate proximity of combustion chambers of such appliances.

***The following section is hereby amended to read as follows*:**

Section M1502.4.2 Duct installation. Exhaust ducts shall be supported at intervals not to exceed 12 feet (3658 mm) and shall be secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Exhaust duct joints shall be sealed in accordance with Section M1601.4.1 and shall be mechanically fastened. Ducts shall not be joined with screws or similar fasteners. Where dryer exhaust ducts are enclosed in wall or ceiling cavities, such cavities shall allow the installation of the duct without deformation.

The following section is hereby amended to read as follows:

M1502.4.6 Duct length. The maximum allowable exhaust duct length shall be determined by one of the methods specified in Sections M1502.4.6.1 or M1502.4.5.2.

M1502.4.6.1 Specified length. The maximum length of the exhaust duct shall be 35 feet (10,668 mm) from the connection to the transition duct from the dryer to the outlet terminal. Where fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.6.1. The maximum length of the exhaust duct does not include the transition duct.

M1502.4.6.2 Dryer exhaust duct power ventilator. The maximum length of the exhaust duct shall be determined in accordance with the manufacturer's instructions for the dryer exhaust duct power ventilator.

Chapter 16 – Duct Systems

The following section is hereby amended by deleting item #7 and renumbering item #8 as item #7 to read as follows:

M1601.1.1 Above-ground duct systems. Above-ground duct systems shall conform to the following:

7. Volume dampers, equipment and other means of supply, return and exhaust air adjustment used in system balancing shall be provided with access.

The following section is hereby added to read as follows:

M1601.4.11 Construction debris and contamination. Mechanical air-handling systems and their related ducts shall be protected from the entrance of dirt, debris, and dust during the construction and installation process. Prior to passing final inspection or issuance of a Certificate of Occupancy, such systems shall be substantially free of construction-related contaminants.

The following section is hereby amended by adding one sentence at the beginning to read as follows (Items #1 through #10 are unchanged):

M1602.2 Return air openings. A return air path shall be provided in all habitable rooms by means of ducts or transfer grills. Return air openings for heating, ventilation and air-conditioning systems shall comply with all of the following:

Chapter 18 – Chimneys and Vents

The following section is hereby added to read as follows:

M1805.4 Spark Arresters. Chimneys serving fireplaces, woodstoves, barbecues, incinerators, or decorative heating appliances in which solid fuel or liquid fuel is used, shall be provided with a spark arrestor. Spark arrestors shall be constructed of woven or welded wire screening of 12 USA standard gauge wire (0.1046 inch/2.66 mm) having openings not exceeding ½ inch. The net free area of the spark arrestor shall not be less than four times the net free area of the outlet of the chimney.

Chapter 24 – Fuel Gas

***The following section is hereby amended to read as follows*:**

G2404.11 (307.6) Condensate pumps. Condensate pumps located in uninhabitable spaces, such as attics and crawl spaces, shall be connected to the appliance or equipment served such that, when the pump fails, an audible alarm shall sound in the habitable area. Pumps shall be installed in accordance with the manufacturer's instructions.

***The following section is hereby amended by deleting exceptions 3 and 4* and renumbering exception 5 and 6 as follows:**

G2406.2 (303.3) Prohibited locations. Appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage closets or surgical rooms, or in a space that opens only into such rooms or spaces, except where the installation complies with one of the following:

1. The appliance is a direct-vent appliance installed in accordance with the conditions of the listing and the manufacturer's instructions.
2. Vented room heaters, wall furnaces, vented decorative appliances, vented gas fireplaces, vented gas fireplace heaters and decorative appliances for installation in vented solid fuel-burning fireplaces are installed in rooms that meet the required volume criteria of Section G2407.5.
3. The appliance is installed in a room or space that opens only into a bedroom or bathroom, and such room or space is used for no other purpose and is provided with a solid weather-stripped door equipped with an approved self-closing device. Combustion air shall be taken directly from the outdoors in accordance with Section G2407.6.
4. A clothes dryer is installed in a residential bathroom or toilet room having a permanent opening with an area of not less than 100 square inches (0.06 m^2) that communicates with a space outside of a sleeping room, bathroom, toilet room or storage closet.

***The following section is hereby amended to read as follows*:**

G2415.12 (404.12) Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches (457 mm) below grade.

***The following section is hereby deleted in its entirety*:**

~~**G2415.12.1 (404.12.1) Individual outdoor appliances**~~.

***The following section is hereby amended to read as follows*:**

G2417.4.1 (406.4.1) Test pressure. The test pressure to be used shall be 10 psi for non-welded pipe for natural gas, 30 psi for liquid propane gas and 60 psi for welded pipe.

Exception: one-piece tubing without joints other than at regulators are not required to be tested during inspection.

The last sentence in the following section is hereby amended to read as follows:

G2420.5.1 (409.5.1) Located within same room. The shutoff valve shall be located in the same room as the appliance. The shutoff valve shall be within 6 feet (1829 mm) of the appliance, and shall be installed upstream of the union, connector or quick disconnect device it serves. Such shutoff valves shall be provided with access. Shutoff valves serving movable appliances, such as cooking appliances and clothes dryers, shall be considered to be provided with access where installed behind such appliances. Appliance shutoff valves located in the firebox of a fireplace shall be installed in accordance with the appliance manufacturer's instructions and shall have a secondary shutoff outside the firebox.

***The following section is hereby amended to read as follows*:**

G2421.3 (410.3) Venting of regulators. Pressure regulators that require a vent shall be vented directly to the outdoors. The vent shall terminate at least 3 feet away from any openings into the building or in accordance with the manufacturer's installation instructions, whichever is less. The vent shall be designed to prevent the entry of insects, water and foreign objects.

Exception: A vent to the outdoors is not required for regulators equipped with and labeled for utilization with an approved vent-limiting device installed in accordance with the manufacturer's instructions.

***The following section is hereby amended to read as follows*:**

G2425.8 (501.8) Appliances not required to be vented. The following appliances shall not be required to be vented:

1. Electric ranges.
2. Electric built-in domestic cooking units listed and marked for optional venting.
3. Hot plates and laundry stoves.
4. *Type 1 clothes dryers* (*Type 1 clothes dryers* shall be exhausted in accordance with the requirements of Section G2439).
5. Refrigerators.
6. Counter *appliances*.

Where the *appliances* listed in Items 5 through 6 are installed so that the aggregate input rating exceeds 20 Btu per hour per cubic foot (207 W/m3) of volume of the room or space in which such *appliances* are installed, one or more shall be provided with venting *systems* or other *approved* means for conveying the *vent gases* to the outdoor atmosphere so that the aggregate input rating of the remaining *unvented appliances* does not exceed 20 Btu per hour per cubic foot (207 W/m3). Where the room or space in which the *appliance* is installed is directly connected to another room or space by a doorway, archway or other opening of comparable size that cannot be closed, the volume of such adjacent room or space shall be permitted to be included in the calculations.

The following section is hereby amended to read as follows:

G2427.4.1 (503.4.1) Plastic piping. Where plastic piping is used to vent an appliance, the appliance shall be listed for use with such venting materials and the appliance manufacturer's installation instructions shall identify the specific plastic piping material. The plastic pipe venting materials shall be labeled in accordance with the product standards specified by the appliance manufacturer or shall be listed in accordance with UL 1738. Where installed as an exhaust vent for a gas-fired water heater, the new plastic pipe shall be tested with 5 psi maximum air pressure by the installer prior to being connected to the water heater.

The following section is hereby amended to read as follows:

G2427.8 (503.8) Venting system terminal clearances. The clearances for through-the-wall direct-vent and nondirect-vent terminals shall be in accordance with Figure G2427.8 and Table G2427.8. Vents shall terminate 12" (305 mm) minimum above anticipated snow level and a minimum of 22 inches (559 mm) above the surface or grade directly below.

Exception: The clearances in Table G2427.8 shall not apply to the combustion air intake of a direct-vent appliance.

The following section is hereby amended solely to amend Row A to read as follows:

Table G2427.8 (503.8) - THROUGH-THE-WALL VENT TERMINAL CLEARANCE

Figure Clearance	Clearance Location	Minimum Clearance for Direct-Vent/ Non-Direct Vent Terminals
A	Clearance above finished grade level, veranda, porch, deck or balcony	22 inches

The following section is hereby amended to read as follows:

G2439.7.2 (614.8.2) Duct installation. Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners. Where dryer exhaust ducts are enclosed in wall or ceiling cavities, such cavities shall allow the installation of the duct without deformation.

The following section is hereby amended to read as follows:

G2439.7.4 (614.9.4) Duct length. The maximum allowable exhaust duct length shall be determined by one of the methods specified in Sections G2439.7.4.1 through G2439.7.4.2.

G2439.7.4.1 (614.9.4.1) Specified length. The maximum length of the exhaust duct shall be 35 feet (10,668 mm) from the connection to the transition duct from the dryer to the outlet terminal. Where fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table G2439.7.4.1.

~~**G2439.7.4.2 (614.9.4.2) Manufacturer's instructions.**~~

G2439.7.4.2 (614.9.4.3) Dryer exhaust duct power ventilator length. The maximum length of the exhaust duct shall be determined by the dryer exhaust duct power ventilator manufacturer's installation instructions.

***The following section is hereby deleted in its entirety*:**

~~**G2445 (621), UNVENTED ROOM HEATERS**~~.

***The following section is hereby added to read as follows*:**

G2447.6 Kitchens with gas cooking appliances. In new construction, kitchens with gas-fired cooking appliances shall be supplied with an exhaust system vented to the outside in accordance with section M1503.

Chapter 25 – Plumbing Administration

***The following section is hereby added to read as follows*:**

P2501.3 Colorado Plumbing Code. Plumbing systems shall conform to the provisions of the most recent Colorado Plumbing Code except as hereinafter noted. Where this code differs from the Colorado Plumbing Code, the most restrictive provisions of either shall govern.

***The following section is hereby amended to read as follows*:**

P2503.5.1 Rough plumbing. DWV systems shall be tested on completion of the rough piping installation by water, by air, or by a vacuum of air for plastic piping systems, without evidence of leakage. The test shall be applied to the drainage system in its entirety or in sections after rough-in piping has been installed, as follows:

1. Water test. Each section shall be filled with water to a point not less than 10 feet (3048 mm) above the highest fitting connection in that section, or to the highest point in the completed system. Water shall be held in the section under test for a period of 15 minutes. The system shall prove leak free by visual inspection.
2. Air test. The portion under test shall be maintained at a gauge pressure of 5 pounds per square inch (psi) (34 kPa) or 10 inches of mercury column (34 kPa). This pressure shall be held without introduction of additional air for a period of 15 minutes.
3. Vacuum test. The portion under test shall be evacuated of air by a vacuum-type pump to achieve a uniform gauge pressure of -5 pounds per square inch or a negative 10 inches of mercury column (-34 kPa). This pressure shall be held without the removal of additional air for a period of 15 minutes.

The following section is hereby deleted in its entirety as follows:

~~**P2503.6 Shower liner test.**~~

Chapter 26 – General Plumbing Requirements

The following section is hereby amended to read as follows:

P2602.1 General. The water-distribution system of any building or premises where plumbing fixtures are installed shall be connected to a public water supply. Where a public water-supply system is not available, or connection to the supply is not feasible, an individual water supply shall be provided. Individual water supplies shall be constructed and installed in accordance with the applicable state and local laws.

Sanitary drainage piping from plumbing fixtures in buildings and sanitary drainage piping systems from premises shall be connected to a public sewer. Where a public sewer is not available, the sanitary drainage piping and systems shall be connected to a private sewage disposal system in compliance with state or local requirements.

Exception: Sanitary drainage piping and systems that convey only the discharge from bathtubs, showers, lavatories, clothes washers and laundry trays shall comply with Larimer County Department of Health and Environment regulations.

***The following section is hereby amended to read as follows*:**

P2603.5 Freezing. A water, soil or waste pipe shall not be installed outside of a building, in exterior walls, in attics or crawl spaces, or in any other place subjected to freezing temperature unless adequate provision is made to protect it from freezing by insulation or heat or both. Water service pipe shall be installed not less than 54 inches below finished grade.

***The following section is hereby amended to read as follows*:**

P2603.5.1 Sewer Depth. Building sewers that connect to private sewage disposal systems shall be not less than 12” below finished grade and shall comply with Larimer County Department of Health and Environment regulations.

Chapter 29 – Water Supply and Distribution

The following section is hereby amended to read as follows:

P2901.2 Identification of nonpotable water systems. Where nonpotable water systems are installed, the piping conveying the nonpotable water shall be identified either by color marking, metal tags or tape in accordance with Sections P2901.2.1 through P2901.2.2.3. Non-potable water systems shall comply with Larimer County Department of Health and Environment regulations

The following section is hereby amended to read as follows:

P2903.4 Thermal expansion control. A means for controlling increased pressure caused by thermal expansion shall be installed where required in accordance with Sections P2903.4.1 and P2903.4.2. Thermal expansion tanks shall be installed and supported in accordance with the manufacturer’s instructions. Thermal expansion tanks shall not be supported by the piping that connects to such tanks.

Section P2910.1 Scope. The provisions of this section shall govern the materials, design, construction and installation of systems for the collection, storage, treatment and distribution of nonpotable water. The use and application of nonpotable water shall comply with Larimer County Department of Health and Environment regulations.

The following section is hereby amended to read as follows:

P2911.1 General. The provisions of this section shall govern the construction, installation, alteration and repair of on-site nonpotable water reuse systems for the collection, storage, treatment and distribution of on-site sources of nonpotable water as permitted by the jurisdiction. Non-potable water systems shall comply with Larimer County Department of Health and Environment regulations.

The following section is hereby amended to read as follows:

P2912.1 General. The provisions of this section shall govern the construction, installation, alteration and repair of rainwater collection and conveyance systems for the collection, storage, treatment and distribution of rainwater for nonpotable applications. The use and application of nonpotable water shall comply with Larimer County Department of Health and Environment regulations.

The following section is hereby amended to read as follows:

P2913.1 General. The provisions of this section shall govern the construction, installation, alteration and repair of systems supplying nonpotable reclaimed water. Non-potable reclaimed water systems shall comply with Larimer County Department of Health and Environment regulations.

Chapter 30 – Sanitary Drainage

The following section is hereby amended to read as follows:

P3009.1 Scope. The provisions of this section shall govern the materials, design, construction and installation of subsurface graywater soil absorption systems connected to nonpotable water from on-site water reuse systems. Subsurface graywater soil absorption systems connected to nonpotable water from on-site water reuse systems shall comply with Larimer County Department of Health and Environment regulations.

CHAPTERS 34 - 43 DELETED

Chapters 34 through 43 are hereby deleted in their entirety and replaced with the latest edition of the National Electrical Code (NFPA 70) as adopted by the State of Colorado Electrical Board. Such code is hereby adopted by this jurisdiction. The provisions of Chapter 1 of this code of the shall constitute the administrative provisions for the electrical code of Larimer County as applicable to buildings within the scope of this code. All references in this code to any section of Chapters 34-43 inclusive shall instead refer to the appropriate sections of the electrical code adopted by Larimer County.

Appendices

Appendix BA "Manufactured Housing used as Dwellings" is hereby adopted as amended.

The following section is hereby amended to read as follows:

BA102.6 Relocation. Where manufactured homes are to be located at or above 6,000 feet (1829 m) elevation, or in areas where ultimate design wind speeds equal or exceed 140 mph (225 km/h), the permit holder shall install or take snow and wind mitigation measures pre-approved by the Larimer County Building Division. Such measures may include independent, engineered structural roof systems capable or resisting the site design snow load, approved snow removal plans, engineered wind fences, or other engineered site-specific designs considering prevailing winds, exposure, topography, trees and other relevant natural features.

The following sections are hereby deleted in their entirety:

~~**SECTION BA105 APPLICATION FOR PERMIT**~~
~~**SECTION BA106 PERMITS ISSUANCE**~~
~~**SECTION BA107 FEES**~~
~~**SECTION BA108 INSPECTIONS**~~
~~**SECTION BA109 SPECIAL INSPECTIONS**~~
~~**SECTION BA110 UTILITY SERVICE**~~

Appendix BB "Tiny Houses" is hereby adopted in its entirety.

Appendix BC "Accessory Dwelling Units" is hereby adopted as amended.

The following section is hereby amended to read as follows:

BC101.1 Accessory dwelling units (ADUs) proposed for new or existing residential construction shall be in accordance with this appendix, other applicable requirements in this code, and the Larimer County Land Use Code. The existing building together with the ADU shall not exceed the scoping limitations of Section R101.2.

The following section is hereby amended to read as follows:

BC101.1.1 Prohibited conditions.

An ADU shall not be permitted within:

1. Live/work units.
2. Owner-occupied lodging houses with five or fewer guestrooms.
3. A care facility with five or fewer persons receiving custodial or medical care within a dwelling unit.
4. Resort lodge cottages.
5. Short-term rentals.
6. Family childcare homes complying with Appendix BD.

The following section is hereby amended to read as follows:

BC101.2 Conditions. ADUs shall be permitted without requiring a change of occupancy where in compliance with all of the following:

1. 1.An ADU shall be permitted within an existing single-family detached dwelling or within an existing townhouse unit that is within the scope of the International Residential Code.
2. 2.Only one ADU shall be permitted for each lot.
3. An ADU shall have a separate house number from the primary dwelling unit.

4. ADU shall be secondary in size and function to the primary dwelling unit and shall comply with the size limits in the Larimer County Land Use Code.
5. An ADU shall be provided with a separate entrance from that serving the primary dwelling unit, either from the exterior of the building or from a common hallway located within the building.
6. The location of a detached ADU shall comply with Section R302.
7. An ADU shall be provided with adequate provisions for electricity, water supply and sewage disposal.

Appendix BD "Home Day Care – R3 Occupancy" is hereby adopted in its entirety.

Appendix BE "Radon Control Methods" is hereby adopted as amended.

The following section is hereby amended to read as follows:

BE101.1 General. This appendix contains requirements for new radon-resistant construction for all new dwellings, and all additions exceeding 1,000 sq. ft. (92.9 m^2) in new footprint area constructed under this code.

The following section is hereby amended to read as follows:

BE103.1 General. The following construction techniques are intended to resist radon entry and prepare the building for post-construction radon mitigation (see Figure BE103.1).

The following section is hereby amended to read as follows (items #1, 2, and 3 are unchanged):

BE103.2 Subfloor preparation. A layer of gas-permeable material shall be placed under all concrete slabs and other floor systems that directly contact the ground and are within the walls of the living spaces of the building, to facilitate installation of a sub-slab depressurization system. Each radon reduction vent pipe riser shall serve no more than 4,000 square feet (371.6 m^2) of uninterrupted under slab/floor area. The gas-permeable layer shall consist of one of the following:

The following section is hereby deleted:

~~**BE103.5.1 Ventilation.**~~

The following section is hereby amended to read as follows:

BE103.5.1 Soil-gas-retarder. The soil in crawl spaces shall be covered with a continuous layer of minimum 6-mil (0.15 mm) polyethylene or 3 mil (0.076 mm) cross laminated polyethylene soil gas retarder. The ground cover shall be lapped not less than 12 inches (305 mm) at joints and sealed or taped. The edges of the ground cover shall extend a minimum of 12 inches (305 mm) up onto all foundation walls enclosing. the under-floor space and be sealed to the wall and any footing pads. An interior perimeter drain tile loop shall be connected to a plumbing tee or other approved connection as per BE103.5.2.

The following section is hereby amended to read as follows:

BE103.5.2 Vent pipe. A plumbing tee or other approved connection shall be inserted horizontally beneath the sheeting and connected to a 3- or 4-inch-diameter (76 or 102 mm) fitting with a vertical vent pipe installed through the sheeting. The vent pipe shall be extended up through the building floors, and terminate not less than 12 inches (305 mm) above the roof in a location not less than 10 feet (3048 mm) away from any window or other opening into the conditioned spaces of the building that is less than 2 feet (610 mm) below the exhaust point, and 10 feet (3048 mm) from any window or other opening in adjoining or adjacent buildings.

The following section is hereby added to read as follows:

BE103.13 Provisions for future depressurization fan installation. Permanent provisions shall be made for the future installation of an in-line fan to be connected to every radon vent pipe. Such designated fan locations shall be outside of the conditioned envelope of the building, such as in the attic, garage and similar locations, excluding crawl spaces and other interior under-floor spaces. Designated locations shall accommodate an unobstructed permanent cylindrical space with the following minimum dimensions: 12 inches (305 mm) measured radially around the radon vent pipe along a vertical distance of 30 inches (760 mm). Designated fan locations shall be permanently accessible for servicing and maintenance. An electrical receptacle outlet shall be provided within 4 feet (1,219 m) of and within sight from designated fan locations and installed so as to not be covered by insulation. A light fixture shall be installed in the area of future fan location.

The following section is hereby amended by amending item #10 and deleting #11 to read as follows:

BE104.1 Testing. Radon testing shall be as specified in Items 1 through 10:

10. Where the radon test result is 4 pCi/L or greater, the fan for the radon vent pipe shall be installed as specified in Sections BE 103.12 and BE103.13.

Exception: Testing is not required where the occupied space is located above an unenclosed open space, or when an approved active radon mitigation system is installed by final inspection.

Appendix BF "Patio Covers" is hereby adopted as amended:

The following section is hereby amended to read as follows:

BF105.2 Footings. In mobile home communities, for patio covers supported independently of the home using approved post bases on a slab-on-grade without footings, the slab shall conform to the provisions of Section R506, shall be not less than 3.5 inches (89 mm) thick and the columns shall not support live and dead loads in excess of 750 pounds (3.34 kN) per column.

Appendix BI "Light Straw-Clay Construction" is hereby adopted in its entirety.

Appendix BJ "Strawbale Construction" is hereby adopted in its entirety.

Appendix BK "Cob Construction (Monolithic Adobe)" is hereby adopted in its entirety.

Appendix BL - "Hemp-Lime (Hempcrete Construction" is hereby adopted in its entirety

Appendix BO "Existing Buildings and Structures" is hereby adopted as amended.

The following section is hereby amended to read in its entirety as follows:

BO 107.1 Moved buildings or structures. Buildings and structures moved into or within Larimer County shall comply with the provisions of the codes in effect when the building was built, or the 1970 Uniform Building Code and the 1977 Colorado Energy Conservation as amended and adopted by Larimer County if the building was constructed prior to January 1, 1972. In addition, moved buildings and structures shall meet the requirements of wind loads, snow loads, flood hazard areas, wildfire hazard areas, and fireplace-restricted areas of their new location.

The following section is hereby added to read as follows:

BO 107.2 Moved manufactured or mobile homes. Where manufactured or mobile homes are to be located at or above 6,000 feet (1,829 m), or in areas where ultimate design wind speeds equal or exceed 140 mph (225 km/h), the permit holder shall install or take snow and wind mitigation measures pre-approved by the Larimer County Building Division. Such measures may include independent, engineered structural roof systems capable of resisting the site design snow load, approved snow removal plans, engineered wind fences, or other engineered site-specific designs considering prevailing winds, exposure, topography, trees and other relevant natural features.

COLORADO MODEL ELECTRIC READY AND SOLAR READY CODE

Published: June 1, 2023

Chapter 1 – Scope and Administration

SECTION 101 SCOPE AND GENERAL REQUIREMENTS.

The following section is hereby amended to read as follows:

101.1 Title. This code shall be known as the **Electric Ready and Solar Ready Code** of Larimer County, and shall be cited as such. It is referred to herein as "this code".

101.2 Scope. This code applies to all buildings and dwelling units, and the buildings' sites and associated systems and equipment.

101.3 Intent. This code shall regulate the design and construction of buildings to prepare new buildings for solar photovoltaic or solar thermal, electric vehicle charging infrastructure, and electrification of building systems. This code is intended to provide flexibility and balance upfront construction costs with the future cost to retrofit buildings to accommodate these systems. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

101.4. Applicability. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

101.4.1 Residential Buildings. *Residential buildings* must comply with the Residential Chapters of this code.

101.4.2 Commercial Buildings. *Commercial buildings* must comply with the Commercial Chapters of this code.

SECTION 102 WAIVER AND VARIANCE.

102.1 Scope. The following waivers shall be permitted to be requested if buildings meet the following requirements.

102.1.1 Commercial Buildings Greater than 10,000 sq. ft. *Commercial buildings* that have a gross floor area greater than 10,000 sq. ft. shall be eligible to request a partial waiver to the requirements of this code if they meet the requirements of Section **102.2**.

The following section is hereby amended to read as follows:

102.1.2 Buildings Impacted by a Natural Disaster. Larimer County is permitted to authorize, upon appeal in specific cases, a waiver from the requirements of this code where, owing to a declared natural disaster that has destroyed buildings or resulted in other exceptional and extraordinary circumstances as determined by Larimer County, and Larimer County determines enforcement of the provisions of this code will result in unnecessary hardship.

The following section is hereby amended to read as follows:

102.2 Substantial Cost Differential Waiver. Larimer County shall be permitted to authorize, upon appeal, a waiver from the requirements of this code for an applicant that asserts that compliance with this code will result in a substantial cost differential. Larimer County, when authorizing such a waiver, shall be permitted to waive certain requirements of this code only until the cost differential for compliance with the remaining requirements reaches one percent or less. The burden of proof is upon the applicant to provide substantiation of a cost differential, such as quotes or other licensed design professional analyses as *approved* by Larimer County.

102.2.1 Substantial Cost Differential. For the purposes of Section **102.2**, "substantial cost differential" means costs incurred as a result of compliance with the requirements of this code would exceed one percent of total mechanical, electrical, and plumbing construction costs inclusive of materials and labor.

SECTION 103 CONSTRUCTION DOCUMENTS.

103.1 General. Construction documents and other supporting data shall be submitted in one or more sets, or in a digital format where allowed by the *code official*, with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist,

the *code official is* authorized to require necessary construction documents to be prepared by a registered design professional.

Exception: The *code official* is authorized to waive the requirements for construction documents or other supporting data if the *code official determines* they are not necessary to confirm compliance with this code.

103.2 Information on Construction Documents. Construction documents shall be drawn to scale on suitable material. Electronic media documents are permitted to be submitted where *approved* by the *code official*. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems, and equipment as herein governed. Details shall include, but are not limited to, the following as applicable:

1. Location and size of the *solar-ready zone.*
2. Structural design loads of roof dead load and roof live load.
3. Pathways for routing of conduit from the *solar-ready zone* to the electrical service panel.
4. Number and location of *EV capable light spaces.*
5. Number and location of *EV capable spaces.*
6. Number and location of *EV ready spaces.*
7. Number and location of *EVSE installed spaces.*
8. Locations of conduit and termination points serving the aforementioned parking spaces.
9. Location for condensate drainage where *combustion equipment* for space heating and water heating is installed.

103.3 Examination of Documents. The *code official* shall examine or cause to be examined the accompanying documents and shall ascertain whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances. The *code official* is authorized to utilize a registered design professional, or other *approved* entity not affiliated with the building design or construction, in conducting the review of the plans and specifications or compliance with the code.

103.3.1 Approval of Construction Documents. When the *code official* issues a permit where construction documents are required, the construction documents shall be endorsed in writing and stamped "Reviewed for Code Compliance". Such *approved* construction documents shall not be changed, modified, or altered without authorization from the *code official*. Work shall be done in accordance with the *approved* construction documents. One set of "Reviewed for Code Compliance" construction documents shall be retained by the *code official*. The other set shall be returned to the applicant, kept at the site of work, and shall be open to inspection by the *code official* or a duly authorized representative.

103.3.2 Previous Approvals. This code shall not require changes in the construction documents, construction, or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned; except that the *code official* is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each.

103.3.3 Phased Approval. The *code official* shall have the authority to issue a permit for the construction of part of a solar ready, EV ready, or electric ready installation before the construction documents for the entire system have been submitted or *approved*, provided that adequate information and detailed statements have been filed complying with all pertinent requirements of this code. The holders of such permit shall proceed at their own risk without assurance that the permit for the entire solar ready, EV ready, or electric ready installation will be granted.

103.4 Amended Construction Documents. Changes made during construction that are not in compliance with the *approved* construction documents shall be resubmitted for approval as an amended set of construction documents.

103.5 Retention of Construction Documents. One set of *approved* construction documents shall be retained by the *code official* for a period of not less than 180 days from the date of completion of the permitted work, or as required by state or local laws.

103.6 Building Documentation and Closeout Submittal Requirements. The construction documents shall specify that the documents described in this section be provided to the building owner or owner's authorized agent within 90 days of the date of receipt of the certificate of occupancy.

Exception: *Residential buildings.*

103.6.1 Record Documents. Construction documents shall be updated to convey a record of the completed work. Such updates shall include mechanical, electrical, and control drawings that indicate all changes to size, type, and location of components, equipment, and assemblies.

103.6.2 Compliance Documentation. Compliance documentation and supporting calculations shall be delivered in one document to the building owner as a part of the project record documents or manuals, or as a standalone document. This document shall include the specific energy code edition utilized for compliance determination for each system.

SECTION 104 INSPECTIONS.

104.1 General. Construction or work for which a permit is required shall be subject to inspection by the *code official*, his or her designated agent or an *approved agency*, and such construction or work shall remain visible and able to be accessed for inspection purposes until *approved*. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the permit applicant to cause the work to remain visible and/or able to be accessed for inspection purposes. Neither the *code official* nor the jurisdiction shall be liable for expenses entailed in the removal or replacement of any material, product, system or building component required to allow an inspection to validate compliance with this code.

104.2 Required Inspections. The *code official*, his or her designated agent or an approved *agency*, upon notification, shall make the inspections set forth in Sections 104.2.1 through **104.2.4**.

104.2.1 Solar Ready. Inspections shall verify all of the following as required by this code, *approved* plans, and specifications:

1. The location and size of the *solar-ready zone* or the capacity of an installed on-site renewable energy system.
2. Electrical capacity and reserved physical space for circuit breakers in the main electrical service panel that are properly labeled.

104.2.2 Electric Vehicle Ready. Inspections shall verify all of the following as required by this code, *approved* plans, and specifications:

1. *EV* power transfer infrastructure requirements.
2. Electrical equipment associated with each parking space type, including branch circuits, conduit and/or raceway, junction boxes, receptacles, and *EVSE* are properly labeled and installed.
3. Electrical capacity and reserved physical space for circuit breakers in the main electrical service panel are properly labeled, if applicable.

104.2.3 Electric Ready. Inspections shall verify all of the following as required by this code, *approved* plans, and specifications:

1. Branch circuits, conduit and/or raceway, wiring, junction boxes, and receptacles for *future electric equipment* or appliances are properly labeled and installed, as applicable.
2. Reserved physical space for *future electric equipment* or appliances. 3. Electrical capacity and reserved physical space for circuit breakers in the main electrical service panel are properly labeled.

104.2.4 Final Inspection. The final inspection shall include verification of the installation and proper labeling of all requirements of this code.

104.3 Reinspection. A building shall be reinspected where determined necessary by the *code official*.

104.4 Approved Inspection Agencies. The *code official* is authorized to accept reports of third-party inspection agencies not affiliated with the building design or construction, provided that such agencies are *approved* as to qualifications and reliability relevant to the building components and systems that they are inspecting.

104.5 Inspection Requests. It shall be the duty of the holder of the permit or their duly authorized agent to notify the *code official* when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

104.6 Reinspection and Testing. Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made to achieve compliance with this code. The work or installation shall then be resubmitted to the *code official* for inspection and testing.

SECTION 105 NOTICE OF APPROVAL.

105.1 Approval. After the prescribed inspections indicate that the work complies in all respects with this code, a notice of approval shall be issued by the *code official*.

105.2 Revocation. The *code official* is authorized to suspend or revoke, in writing, a notice of approval issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure, premise, or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.

SECTION 106 VALIDITY.

106.1 General. If a portion of this code is held to be illegal or void, such a decision shall not affect the validity of the remainder of this code.

SECTION 107 REFERENCED STANDARDS.

107.1 General. The codes and standards referenced in this code shall be listed in Section **107.2**, and such codes and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference.

107.2 Referenced Codes and Standards. The codes and standards referenced in this code are as follows:

1. International Building Code
a. Chapter 3
b. Chapter 11
2. International Energy Conservation Code
3. International Fire Code
4. International Residential Code
5. National Electrical Code Article 625
6. UL2202 and 2594

107.2.1 Conflicts. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

107.2.2 Provisions in Referenced Codes and Standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

The following section is hereby amended to read as follows:

108.4 Failure to Comply. Any person who shall continue any work 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 fines established by Larimer County.

SECTION 109 BOARD OF APPEALS.

109.1 General. In order to hear and decide appeals of orders, decisions, or determinations made by the *code official* relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The *code official* shall be an ex officio member of said board but shall not have a vote on any matter before the board. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *code official*.

109.2 Limitations on Authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall not have the authority to waive the requirements of this code.

The following section is hereby amended to read as follows:

109.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training and are not employees of Larimer County.

Chapter 2 – Definitions

SECTION 201 GENERAL.

201.1 Scope. Unless stated otherwise, the following words and terms in this code shall have the meanings indicated in this chapter.

201.2 Interchangeability. Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural includes the singular.

201.3 Terms Defined in Other Codes. Terms that are not defined in this code but are defined in the International Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Energy Conservation Code, or International Residential Code shall have the meanings ascribed to them in those codes.

201.4 Terms not Defined. Terms not defined by this chapter or the codes listed under 201.3 shall have ordinarily accepted meanings such as the context implies.

SECTION 202 GENERAL DEFINITIONS.

APPROVED. Acceptable to the *code official*.

APPROVED AGENCY. An established and recognized agency that is regularly engaged in conducting tests or furnishing inspection services, or furnishing product certification, where such agency has been approved by the *code official.*

CODE OFFICIAL. The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.

COMBUSTION EQUIPMENT. For this code, any equipment or appliance used for space heating, service water heating, cooking, clothes drying or lighting that uses *fuel gas* or f*uel oil*.

COMMERCIAL BUILDING. For this code, all commercial buildings and R-Occupancies that are covered by the International Building Code.

CORE AND SHELL. The first phase of a commercial project that has the outer building envelope constructed and may contain interior lighting and heating and has not received a permanent Certificate of Occupancy.

DIRECT CURRENT FAST CHARGER (DCFC) EVSE. Equipment capable of fast charging on a 100A or higher 480VAC three-phase branch circuit. AC power is converted into a controlled DC voltage and current within the *EVSE* that will then directly charge the *electric vehicle*.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, including but not limited to, passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles, primarily powered by an electric motor that draws current from a building electrical service, *EVSE*, a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current. Off-road, self-propelled electric mobile equipment, including but not limited to, industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, and boats are not considered electric vehicles.

ELECTRIC VEHICLE CAPABLE LIGHT SPACE (EV CAPABLE LIGHT SPACE). A designated vehicle parking space that has conduit and/or raceway installed to support future implementation of *electric vehicle* charging installation, and has sufficient physical space adjacent to the existing electrical equipment for future electric upgrades.

ELECTRIC VEHICLE CAPABLE SPACE (EV CAPABLE SPACE). A designated vehicle parking space that has the electric panel capacity and conduit and/or raceway installed to support future implementation of *electric vehicle* charging.

ELECTRIC VEHICLE READY SPACE (EV READY SPACE). A designated vehicle parking space that has the electric panel capacity, raceway wiring, receptacle, and circuit overprotection devices installed to support future implementation of *electrical vehicle* charging.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). An *electric vehicle* charging system or device that is used to provide electricity to a plug-in *electric vehicle* or *plug-in hybrid electric vehicle*, is designed to ensure that a safe connection has been made between the electrical grid and the vehicle, and is able to communicate with the vehicle's control system so that electricity flows at an appropriate voltage and current level.

ELECTRIC VEHICLE SUPPLY EQUIPMENT INSTALLED SPACE (EVSE INSTALLED SPACE). A vehicle parking space that is provided with a dedicated *EVSE* connection.

FIRST TENANT FINISH. The first tenant finish(es) in a new structure or *core and shell* building that is credited towards meeting the requirements of this Chapter.

FUEL GAS. A natural gas, manufactured gas, liquefied petroleum gas, or mixtures of these gasses.

FUEL OIL. Kerosene or any hydrocarbon oil having a flash point of not less than 100°F (38°C).

FUTURE ELECTRIC EQUIPMENT. Equipment or appliances necessary to support future all-electric space and water heating, cooking, or clothes drying.

PLUG-IN HYBRID ELECTRIC VEHICLE. An *electric vehicle* having a second source of motive power.

RESIDENTIAL BUILDING. For this code, one- and two-family dwellings and townhouses as defined in the International Residential Code.

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for future installation of a solar photovoltaic system or solar thermal system.

Chapter 3 – Electric Ready

PART 1 RESIDENTIAL ELECTRIC READY

SECTION RE301 SCOPE

RE301.1 General. These provisions shall be applicable for all new buildings, and major renovations and additions.

SECTION RE302 ADDITIONAL ELECTRIC INFRASTRUCTURE

RE302.1 Additional Electric Infrastructure. *Combustion equipment* in *residential buildings* must meet the requirements of Sections **RE302.2** through **RE302.6**.

Exceptions:

1. Interior fireplaces that do not serve as a primary source of heating.
2. Exterior fireplaces and firepits.

RE302.2 Combustion Equipment. *Combustion equipment* shall be provided with all of the following:

1. A dedicated, appropriately phased branch circuit sized to accommodate *future electric equipment* or appliances to serve a comparable capacity to meet the heating load.
2. An electric receptacle or junction box that meets the requirements of Section **RE302.5**, and is connected to the electrical panel through the branch circuit. Each electrical receptacle or junction box shall have reasonable access to the *combustion equipment* or dedicated physical space for *future electric equipment* with no obstructions other than the current *combustion equipment*.
3. Where *combustion equipment* is used for space or water heating, dedicated physical space shall be provided for *future electric equipment,* including an electric resistance backup coil for ducted systems, if applicable.

Exception: Dwelling units with installed air conditioning systems are not required to provide additional dedicated physical space for an outdoor heat pump.

RE302.3 Electrical Panel Space. The electrical panel shall have a reserved space for a minimum two-pole circuit breaker for each branch circuit provided for *future electric equipment* or appliances.

RE302.4 Labeling. The junction box or receptacle and the dedicated circuit breaker space serving *future electric equipment* or appliances in the electrical panel shall be labeled for their intended use.

RE302.5 Adjacency. The electrical receptacle or junction box must be provided within 3 feet of the *combustion equipment* or appliances, or within 3 feet of the dedicated physical space for *future electric equipment* or appliances.

Exception: For *combustion equipment* dedicated to space or water heating, the electrical receptacle or junction box shall be located not more than 6 feet from the *combustion equipment* or the dedicated physical space for *future electric equipment*.

RE302.6 Condensate Drain. Where *combustion equipment* for space heating and water heating is installed, a location shall be provided for condensate drainage.

PART 2 COMMERCIAL ELECTRIC READY

SECTION CE301 SCOPE

CE301.1 General. These provisions shall be applicable for all new buildings, additions, and *first tenant finish* permits.

CE301.1.1 First Tenant Finishes. In the case that a *first tenant finish* to a commercial *core and shell* building or unfinished space is credited towards meeting the requirements of this Chapter, the *code official* shall not issue a

Certificate of Occupancy to the tenant until the requirements of Section **CE302** are met.

SECTION CE302 ADDITIONAL ELECTRIC INFRASTRUCTURE

CE302.1 Additional Electric Infrastructure. *Combustion equipment* in *commercial buildings* shall meet the electric infrastructure requirements of Sections **CE302.2** or **CE302.3**.

Exceptions:

1. Interior fireplaces that do not serve as a primary source of heating.
2. Exterior fireplaces and fire pits.
3. Additions to buildings that do not provide new space-heating equipment will not be required to provide additional electrical infrastructure to the existing space-heating equipment.

CE302.2 Commercial Buildings Less than 10,000 sq. ft. and all R-Occupancies. *Commercial buildings* that have a gross floor area of less than 10,000 sq. ft., and all R occupancies of any size, shall comply with Sections **CE302.2.1** through **CE302.2.5**.

CE302.2.1 Combustion Equipment. *Combustion equipment* shall be provided with all of the following:

1. A dedicated, appropriately phased branch circuit sized to accommodate *future electric equipment* or appliances to serve a comparable capacity to meet the heating load.
2. An electric receptacle or junction box that meets the requirements of Section **CE302.2.5**, and is connected to the electrical panel through the branch circuit. Each electrical receptacle or junction box shall have reasonable access to the *combustion equipment* or dedicated physical space for *future electric equipment* with no obstructions other than the current *combustion equipment*.
3. Where *combustion equipment* is used for space or water heating, dedicated space shall be provided for all *future electric equipment*, including an electric resistance backup coil for ducted systems if applicable.

Exception: Buildings with installed air conditioning systems are not required to provide additional dedicated physical space for an outdoor heat pump.

CE302.2.2 Electrical Panel Space. The electrical panel shall have reserved physical space for a minimum two-pole or three-pole circuit breaker for each branch circuit provided for *future electric equipment* or appliances. The physical space in the electrical panel for each circuit breaker shall be sized with sufficient breaker capacity to meet the electrical demand of the *future electric equipment* or appliance that is sized to serve a comparable capacity to meet the heating load.

CE302.2.3 Labeling. The junction box or receptacle and the dedicated circuit breaker space serving *future electric equipment* or appliances in the electrical panel shall be labeled for their intended use.

CE302.2.4 Adjacency. The electrical receptacle or junction box must be provided within 3 feet of the *combustion equipment* or appliances or within 3 feet of the dedicated physical space for *future electric equipment* or appliances.

Exception: For *combustion equipment* dedicated to space or water heating, the electrical receptacle or junction box shall be located not more than 6 feet from the *combustion equipment* or the dedicated physical space for *future electric equipment*.

CE302.2.5 Condensate Drain. Where *combustion equipment* dedicated to space heating and water heating is installed, a location shall be provided for condensate drainage.

CE302.3 Commercial Buildings 10,000 sq. ft. or Greater. All *commercial buildings* that have a gross floor area of 10,000 sq. ft. or greater shall comply with the following requirements.

Exception: R-occupancies.

CE302.3.1 Combustion Equipment or Appliances. All *combustion equipment* shall be provided with the following:

1. A junction box that is located in the same physical space as the combustion *equipment* and is reasonably accessible, and that is connected to the electrical panel by continuous conduit and/or raceways.
2. Dedicated electrical panel space for an appropriately phased branch circuit sized to accommodate *future electric equipment* or appliances to serve a comparable capacity to meet the heating load.
3. Where *combustion equipment* is used for space and water heating, dedicated physical space shall be provided for all *future electric equipment*.

CE302.3.2 Electrical Panel Space. The electrical panel shall have reserved physical space for a minimum two-pole or three-pole circuit breaker for each branch circuit provided for *future electric equipment* or appliances. The physical space in the electrical panel for each circuit breaker shall be sized with sufficient breaker capacity to meet the electrical demand of the *future electric equipment* or appliance that is sized to serve a comparable capacity to meet the heating load.

CE302.3.3 Labeling. The dedicated circuit breaker space serving *future electric equipment* or appliances in the electrical panel shall be labeled ”For future electric equipment”.

CE302.3.4 Physical Space. Dedicated physical space shall be provided for additional electric equipment, including but not limited to transformers and cabinets, necessary for electrical service to *future electric equipment* or appliances.

Chapter 4 – Solar Ready

PART 1 RESIDENTIAL SOLAR READY.

SECTION RS401 SCOPE.

RS401.1 General. These provisions shall be applicable for new buildings, and major renovations and additions.

SECTION RS402 SOLAR READY ZONE.

RS402.1 General. New *residential buildings* with not less than 600 square feet of roof area oriented between 110 degrees and 270 degrees of true north or that is a low sloped roof, shall comply with Sections **RS402.2** through **RS402.8**.

Exceptions:

1. New residential dwelling units with a permanently installed on-site renewable energy system that provides electricity to the dwelling unit's electrical system.
2. A building where all areas of the roof that would otherwise meet the requirements of Section **RS402** are in full or partial shade for more than 70 percent of daylight hours annually.

RS402.2 Construction Document Requirements for Solar-Ready Zone. Construction documents shall indicate the *solar-ready zone*.

RS402.3 Solar-Ready Zone Areas. The total *solar-ready zone* area for each dwelling unit shall be not less than 300 square feet exclusive of mandatory access or setback areas as required by the International Fire Code. The *solar-ready zone* shall be composed of areas not less than 5 feet in width and not less than 80 square feet exclusive of access or setback areas as required by the International Fire Code.

Exception: New townhouses three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 square feet of conditioned space per townhouse unit shall have a *solar-ready zone* area of not less than 150 square feet.

RS402.4 Obstructions. *Solar-ready zones* shall be free from obstructions, including but not limited to, vents, chimneys, and roof-mounted equipment.

RS402.5 Shading. The *solar-ready zone* shall be set back from any existing or new permanently affixed object on the building or site that is located south, east, or west of the *solar-ready zone* a distance not less than two times the object's height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees, and roof plantings either existing at the time of permit application or planned for on the construction documents.

RS402.6 Roof Load Documentation. The structural design loads of roof dead load and roof live load shall be clearly indicated on the construction documents.

RS402.7 Interconnection Pathway. Construction documents shall indicate at least one potential pathway for routing of conduit and/or raceway from the *solar-ready zone* to the electrical service panel and shall be labeled as "Potential Pathway" on the construction documents.

RS402.8 Electrical Service Reserved Space. The main electrical service panel shall have sufficient reserved space to allow the installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

RS402.9 Construction Documentation Certificate. A permanent certificate, indicating the *solar-ready zone* and other requirements of this Part, shall be posted near the electrical distribution panel, water heater, or other conspicuous location.

PART 2 COMMERCIAL SOLAR READY

SECTION CS401 SCOPE

CS401.1 General. These provisions shall be applicable for new buildings, and major renovations and additions.

SECTION CS402 SOLAR-READY ZONE

CS402.1 General. A *solar-ready zone* shall be located on the roof of all new commercial *buildings* that are oriented between 110 and 270 degrees of true north or have low-sloped roofs. *Solar-ready zones* shall comply with Sections **CS402.2** through CS**402.7**.

Exceptions:

1. A building with a permanently-installed, on-site renewable energy system that meets the following criteria.
a. The system produces the energy output equivalent to covering 40 percent of the net roof area with solar photovoltaic calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, vegetative roof areas, and mandatory access or setback areas as required by the International Fire Code.
b. The system is located on the roof or overhang of the building or on the roof or overhang of another structure located within 250 feet of the building, on the building premises, on covered parking, or another *approved* location installed with the building project and under the same property ownership.
2. A building with a *solar-ready zone* that is shaded for more than 70 percent of daylight hours annually.
3. A building where a licensed design professional certifies that the incident solar radiation available to the building is not suitable for a *solar-ready zone*.
4. A building where a licensed design professional certifies that the *solar ready zone* area required by Section **CS402.3** cannot be met because of extensive rooftop equipment, skylights, vegetative roof areas, or other obstructions.

CS402.2 Construction Document Requirements for a Solar-Ready Zone. Construction documents shall indicate the *solar-ready zone*.

CS402.3 Solar-Ready Zone Area. The total *solar-ready zone* area shall not be less than 40 percent of the roof area calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, vegetative roof areas, and mandatory access or setback areas as required by the International Fire Code. The *solar-ready zone* shall be a single area or smaller, separated sub-zone areas. Each sub-zone area shall be not less than 5 feet in width in the narrowest dimension.

The *solar-ready zone* shall be located on the roof or overhang of the building or on the roof or overhang of another structure located within 250 feet of the building, on the building premises, on covered parking, or another *approved* location installed with the building project and under the same property ownership.

CS402.4 Obstructions. *Solar-ready zones* shall be free from obstructions, including pipes, vents, ducts, HVAC equipment, skylights, and roof-mounted equipment.

CS402.5 Roof Loads and Documentation. The structural design loads for roof dead load and roof live load shall be indicated on the construction documents.

CS402.6 Interconnection Pathway. Construction documents shall indicate at least one potential pathway for routing of conduit and/or raceway from the *solar-ready zone* to an electrical service panel and shall be labeled as “Potential Pathway” on the construction documents.

CS402.7 Electrical Service Reserved Space. The main electrical service panel shall have a minimum bus bar rating of not less than 200 amps. The main electrical service panel shall have a reserved space to allow installation of a dual-pole circuit breaker for future solar electric. This space shall be labeled “For Future Solar Electric.” The reserved space shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

PART 3 RESIDENTIAL SOLAR PANEL CAPACITY

SECTION RS410 SCOPE

RS410.1 General. These provisions shall be applicable for all new buildings, and major renovations and additions.

RS410.2 Electric Service Reserved Space. The main electrical service panel shall have sufficient reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled “For Future Solar Electric.” The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

Exception: A dwelling unit that already must comply with the solar ready provisions in Chapter 4 or that has a permanently installed on-site renewable energy system that provides electricity to the dwelling unit’s electrical system.

PART4 COMMERCIAL SOLAR PANEL CAPACITY

SECTION CS410 SCOPE

CS410.1 General. These provisions shall be applicable for new buildings, and major renovations and additions.

CS410.2 Electric Service Reserved Space. The main electrical service panel shall have a minimum bus bar rating of not less than 200 amps. The main electrical service panel shall have sufficient reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled “For Future Solar Electric.” The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

Exception: A building that already must comply with the solar ready provisions in Chapter 4 or that has a permanently installed on-site renewable energy system that provides electricity to the building’s electrical system.

Chapter 5 – Electric Vehicle Ready

PART 1 RESIDENTIAL ELECTRIC VEHICLE READY

SECTION RV501 SCOPE

RV501.1 General. These provisions shall be applicable for all new buildings, and major renovations and additions.

SECTION RV502 ELECTRIC VEHICLE POWER TRANSFER INFRASTRUCTURE

RV502 Electric Vehicle Power Transfer Infrastructure. New vehicle parking spaces for residential *buildings* shall be provided in accordance with Sections **RV502.1** and RV**502.3**.

RV502.1 One- and Two-family Dwellings and Townhouses. Each dwelling unit with a dedicated attached or detached garage or other onsite designated parking provided for the dwelling unit shall be provided with one *EV ready space* per dwelling unit.

RV502.2 EV Ready Spaces. Each *EV ready space* shall have a branch circuit that complies with all of the following:

1. Terminates at a receptacle, located within 3 feet of each *EV ready space* it serves. *EV ready* includes two adjacent parking spaces if the receptacle for the electrical facilities of this section is installed adjacent to and between both parking spaces.
2. Has a minimum circuit capacity of 8.3 kVA (40A 208/240V).
3. The electrical panel, electrical distribution equipment directory, and all outlets or enclosures shall be marked “For future electric vehicle supply equipment”.

Exception: A receptacle need not be provided if a hard-wired *EVSE* is installed.

RV502.3 Identification. Construction documents shall designate the *EV ready space* and indicate the locations of raceway and/or conduit and the termination points serving them. The circuits or spaces reserved in the electrical panel for *EV ready spaces* shall be clearly identified in the panel or subpanel directory.

PART 2 COMMERCIAL ELECTRIC VEHICLEREADY

SECTION CV501 SCOPE

CV501.1 General. These provisions shall be applicable for all new buildings, and major renovations and additions.

SECTION CV502 ELECTRIC VEHICLE POWER TRANSFER INFRASTRUCTURE

CV502 Electric Vehicle Power Transfer Infrastructure. Where new parking is provided for *commercial buildings,* it shall be provided with *electric vehicle* power transfer infrastructure in compliance with Sections **CV502.1** through **CV502.9**.

CV502.1 Quantity. The number of required *EVSE installed spaces, EV ready spaces, EV capable spaces,* and *EV capable light spaces* shall be determined in accordance with this Section and **Table CV502.1** based on the total number of provided vehicle parking spaces and shall be rounded up to the nearest whole number. This includes all covered parking under carports or detached garages.

CV502.1.1 Where more than one parking lot is provided on a building site, the number of provided vehicle parking spaces required to have *EV* power transfer infrastructure shall be calculated separately for each parking lot.

CV502.1.1.1 R-2 Occupancies, as defined in Chapter 3 of the International Building Code, shall use the total parking requirement for the entire development to determine the *EV* power transfer infrastructure requirements using **Table CV502.1**.

CV502.1.2 For *commercial buildings* that install a *DCFC EVSE,* each *DCFC EVSE* installed shall be permitted to be substituted for other space types as follows:

1. *Commercial buildings* other than R-2 Occupancies shall be permitted to substitute up to 10 spaces when the building provides a minimum of 20 percent of parking spaces as a combination of *EV Capable*, *EV ready*, or EVSE *installed spaces*.

2. R-2 Occupancies shall be permitted to substitute up to 5 spaces when the building provides a minimum of 60 percent of parking spaces as a combination of *EV Capable light, EV Capable, EV ready*, or *EVSE installed spaces*.

CV502.1.3 *EVSE installed spaces* that exceed the minimum requirements of this section are permitted to be used to meet minimum requirements for *EV ready spaces*, *EV capable spaces*, and *EV capable light spaces*.

CV502.1.4 E*V ready spaces* that exceed the minimum requirements of this section are permitted to be used to meet minimum requirements for *EV capable spaces* and *EV capable light spaces*.

CV502.1.5 *EV capable spaces* that exceed the minimum requirements of this section are permitted to be used to meet the minimum requirements for *EV capable light spaces*.

CV502.1.6 All attached garages with direct connection to a dwelling unit will be required to have one *EV ready space*.

Table CV502.1: EV Power Transfer Infrastructure Requirements

Building Type / Space Type	*EVSE Installed Space*	*EV Ready Space*	*EV Capable Space*	*EV Capable Light Space*
All *commercial buildings*, except for R-2 occupancies, with 10 or less parking spaces.	0	2 spaces	0	0
***Commercial buildings*, except for R-2 occupancies, with greater than 10 parking spaces.**	2% of spaces	8% of spaces	10% of spaces	10% of spaces
R-2 occupancies with 10 or less parking spaces	0	15% of spaces	10% of spaces	10% of spaces
R-2 occupancies with greater than 10 parking spaces.	5% of spaces	15% of spaces	10% of spaces	30% of spaces

CV502.2 EV Capable Light Spaces. Each *EV capable light space* shall comply with all of the following:

1. A continuous raceway and/or conduit shall be installed between a suitable electrical panel or other electrical distribution equipment and terminate within 3 feet of the *EV capable light space* and shall be capped. *EV capable light* includes two adjacent parking spaces if the raceway and/or conduit terminates adjacent to and between both parking spaces.
2. Installed raceway and/or conduit shall be sized and rated to supply a minimum of 208 volts and a minimum of 40-ampere rated circuits.
3. Dedicated physical space to accommodate all equipment necessary for electrical service to future *EVSE*.
4. The routing of the raceway and/or conduit must be noted on the construction documents and the raceway shall be permanently and visibly marked “EV CAPABLE” at the load center and termination point locations.

CV502.3 EV Capable Spaces. Each *EV capable space* shall comply with all of the following:

1. A continuous raceway and/or conduit shall be installed between a suitable electrical panel or other electrical distribution equipment and terminate within 3 feet of the *EV capable space* and shall be capped. *EV capable* includes two adjacent parking spaces if the raceway and/or conduit terminates adjacent to and between both parking spaces.
2. The installed raceway and/or conduit shall be sized and rated to supply a minimum of 208 volts and a minimum of 40-ampere rated circuits. 3. The electrical panel or other electrical distribution equipment to which the raceway and/or conduit connects shall have sufficient dedicated space and spare electrical capacity to supply a minimum of 208 volts and a minimum of 40-ampere rated circuits.
4. The termination point of the conduit and/or raceway and the electrical distribution equipment directory shall be marked: “For future electric vehicle supply equipment (EVSE).”
5. Reserved capacity shall be no less than 8.3 kVA (40A 208/240V) for each *EV capable space*.

CV502.4 EV Ready Spaces. Each *EV ready space* shall have a branch circuit that complies with all of the following:

1. Terminates at a receptacle or junction box located within 3 feet of each *EV ready space* it serves. *EV ready* includes two adjacent parking spaces if the receptacle is installed adjacent to and between both parking spaces.
2. Has a minimum circuit capacity of 8.3 kVA (40A 208/240V).
3. The electrical panel, electrical distribution equipment directory, and all outlets or enclosures shall be marked “For future electric vehicle supply equipment (EVSE).”

CV502.5 Electric Vehicle Supply Equipment (EVSE). All *EVSE* shall meet all of the following requirements:

1. The installed *EVSE* shall meet one of the following requirements:
    a. A power capacity of at least 6.2 kVa (or 30A at 208/240V) and has the ability to connect to the internet.
    b. An inductive charging system for battery-powered *electric vehicles* that:
        i. Is ENERGY STAR certified; and
        ii. Has the ability to connect to the internet.
2. An *electric vehicle* charging system shall be wall-mounted or pedestal style and may provide multiple cords to connect with *electric vehicles*.
3. An *electric vehicle* charging system shall be listed and labeled for *EV* charging and must comply with the current version of Article 625 of the National Electrical Code.

CV502.6 EVSE Installed Spaces. An installed *EVSE* with multiple output connections shall be permitted to serve multiple *EVSE installed spaces*. Each *EVSE* installed serving either a single *EVSE installed space* or multiple *EVSE installed spaces*, shall comply with all of the following:

1. Have a minimum charging rate in accordance with Section **CV502.7**. 2. Be located within 3 feet of each *EVSE installed space* it serves.
3. Be installed in accordance with Section **CV502.8**.
4. Have a minimum circuit capacity of 8.3 kVA (40A 208/240V).
5. Must meet the requirements of Section **CV502.5**.

CV502.7 EVSE Minimum Charging Rate. Each installed *EVSE* shall comply with one of the following:

1. Be capable of charging at a minimum rate of 6.2 kVA (or 30A at 208/240V).
2. When serving multiple *EVSE installed spaces* and controlled by an energy management system providing load management, be capable of simultaneously sharing each *EVSE installed space* at a minimum charging rate of no less than 3.3 kVA.

CV502.8 EVSE Installation. *EVSE* shall be installed in accordance with NFPA 70 and shall be listed and labeled in accordance with UL 2202 or UL 2594. When serving an accessible parking space, *EVSE* shall be accessible in accordance with the International Building Code Chapter 11.

CV502.9 Identification. Construction documents shall designate all *EVSE installed spaces, EV ready spaces, EV capable spaces,* and *EV capable light spaces,* and indicate the locations of raceway and/or conduit and termination points serving them. The circuits or spaces reserved for *EVSE installed spaces, EV ready spaces,* and *EV capable spaces* shall be clearly identified in the panel or subpanel directory. The raceway and/or conduit for *EV ready spaces, EV capable spaces* and *EV capable light spaces* shall be clearly identified at both the panel or subpanel and the termination point at the parking space.

2025 COLORADO WILDFIRE RESILIENCY CODE

01 June 2025
CWRC Version 1.0

Chapter 1 – Scope and Administration

PART 1 GENERAL PROVISIONS

SECTION 101 SCOPE AND GENERAL REQUIREMENTS

The following section is hereby amended to read as follows:

101.1 Title. These regulations shall be known as the Colorado Wildfire Resiliency Code as adopted by Larimer County, hereinafter referred to as "this code."

101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, repair, maintenance and use of any building, structure or premises that contain *occupiable* and/or *habitable space*, or change in use resulting in an occupiable and/or habitable space, unless excepted, within the *wildland-urban interface* areas of Colorado, as designated in this code. Buildings or conditions in existence at the time of the adoption of this code are allowed to have their use or occupancy continued, if such condition, use or occupancy was legal at the time of the adoption of this code, provided that such continued use does not constitute a distinct danger to life or property.

Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code for new buildings or structures.

101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted.

101.2.2 Factory-built structures (nonresidential, residential, and tiny homes). Structure hardening provisions of this code for factory-built structures as defined by sections 24-32-3302(9), (10), (11), and (35), C.R.S., are in accordance with Rules adopted by the Division of Housing in 8 CCR 1302-1, Rule 2 Codes and Standards.

101.2.3 HUD code homes. Homes built to the Housing and Urban Development (HUD) Manufactured Home Construction and Safety Standards are exempt from structure hardening requirements on their first installation. Homes built to the HUD Manufactured Home Construction and Safety Standards which are moved into an applicable Wildfire Resiliency code area are subject to the provisions of this code as required by the authority having jurisdiction.

101.3 Purpose. The purpose of this code is to establish minimum regulations for the safeguarding of life and for property protection. Regulations in this code are intended to mitigate the risk to life and structures from intrusion of fire from wildland fire exposures and fire exposures from adjacent structures and to mitigate structure fires from spreading to wildland fuels. The extent of this regulation is intended to be tiered commensurate with the relative level of hazard present.

The unrestricted use of property in *wildland-urban interface* areas is a potential threat to life and property from fire and resulting erosion. Safeguards to prevent the occurrence of fires and to provide adequate fire protection facilities to control the spread of fire in *wildland-urban interface* areas shall be in accordance with this code.

This code shall supplement the jurisdiction's building and fire codes, if such codes have been adopted, to provide for special regulations to mitigate the fire- and life-safety hazards of the *wildland-urban interface* areas.

101.4 Retroactivity. The provisions of the code shall apply to conditions arising after the adoption thereof, conditions not legally in existence at the adoption of this code and conditions that, in the opinion of the *code official*, constitute a distinct hazard to life or property.

Exception: Provisions of this code that specifically apply to existing conditions are retroactive.

101.5 Additions or alterations. Additions or alterations shall be permitted to be made to any building or structure without requiring the existing building or structure to comply with all of the requirements of this code, provided that, when the work increases the footprint of the existing structure by 500 square feet or greater, the addition or alteration conforms to that required for a new building or structure.

Exception: Provisions of this code that specifically apply to existing conditions are retroactive.

Additions or alterations shall not be made to an existing building or structure that will cause the existing building or structure to be in violation of any of the provisions of this code nor shall such additions or alterations cause the existing building or structure to become

unsafe. An unsafe condition shall be deemed to have been created if an addition or alteration will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate access in compliance with the provisions of this code or will obstruct existing exits or access; will create a fire hazard; will reduce required fire resistance or will otherwise create conditions dangerous to human life.

101.6 Roof coverings. The *roof covering* on buildings or structures in existence prior to adoption of this code that are replaced or have 25 percent or more of the surface area of the roof replaced, or where work to reconstruct, alter, or repair the *roof covering* effectively replaces such material, shall require the entirety of the *roof covering* to be replaced with a *roof covering* required for new construction specified in Sections 403.2 through 403.2.2.

Exception: Existing *roof coverings* that are compliant with Section 403.2.

The following section was updated with the appropriate code references:

101.7 Exterior walls. The exterior walls of building or structures in existence prior to adoption of this code where 25 percent or more of the total exterior wall surface area is replaced, or where work to reconstruct, alter or repair the exterior walls effectively replaces the exterior wall material, shall require the entirety of the exterior wall surface area, including attachments, to be replaced with materials required for new construction specified in Section 403.6 through 403.6.2 and the immediate zone within 5 feet of the structure shall be made to comply with Section 502.1.

Exception: Existing exterior walls that are compliant with Section 403.6.

101.8 Maintenance. Buildings, structures, landscape materials, vegetation, *defensible space* or other devices or safeguards required by this code shall be maintained in conformance to the code edition under which installed. The owner or the owner's authorized agent shall be responsible for the maintenance of buildings, structures, landscape materials and vegetation.

SECTION 102—APPLICABILITY

102.1 General. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern. Where, in any specific case, different sections of this code, or any other adopted code, specify different materials, methods of construction or other requirements, the most restrictive shall govern.

102.2 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

102.3 Application of references. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

102.4 Referenced codes and standards. The codes and standards referenced in this code are listed throughout this code. Such codes and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.4.1 and 102.4.2.

102.4.1 Conflicts. Where conflicts occur between provisions of this code and the referenced codes and standards, the provisions of this code shall govern.

102.4.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced standard.

102.5 Subjects not regulated by this code. Where applicable standards or requirements are not set forth in this code, or are contained within other laws, codes, regulations, ordinances or policies adopted by the authority having jurisdiction, compliance with applicable standards of other nationally recognized safety standards, as *approved*, shall be deemed as prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the *code official* to determine compliance with codes or standards for those activities or installations within the code official's jurisdiction or responsibility.

102.6 Matters not provided for. Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, which are not specifically provided for by this code, shall be determined by the *code official* consistent with the necessity to establish the minimum requirements to safeguard the public health, safety and general welfare.

102.7 Partial invalidity. In the event that any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions.

102.8 Existing conditions. The legal occupancy or use of any structure or condition existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the *International Fire Code* or the *International Property Maintenance Code*, or as is deemed necessary by the *code official* for the general safety and welfare of the occupants and the public.

102.9 Historic structures. A variance is authorized to be issued for the repair or rehabilitation of a historic structure or construction of a contributing structure upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure, and the variance is the minimum necessary to preserve the historic character and design of the structure, within the spirit of this code.

Exception: Within wildfire hazard areas, historic structures that do not meet one or more of the following designations:

1. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places.
2. Determined as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district.
3. Designated as historic under a state or local historic preservation program.

102.9.1 Historic preservation exemption. The authority having jurisdiction may establish a historic preservation exemption or exemptions in their jurisdiction that consists of the spirit and intent of this code.

The following section is hereby amended to read as follows:

102.10 Work exempt from permit under this code. Exemptions from code requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of the jurisdiction. Compliance with this code shall not be required for the following:

1. Interior alterations of existing structures.
2. Additions that do not increase the footprint of a structure by more than 500 square feet.
3. The reconstruction, replacement, alteration, or repair of the exterior walls of an existing building, when less than 25 percent of the surface area of all exterior walls is affected.
4. The reconstruction, replacement, alteration, or repair of the exterior *roof covering* of an existing building, when less than 25 percent of the surface area of the exterior *roof covering* or an attachment thereto is affected.
5. Alterations or repairs to the exterior of an existing structure, or an attachment to it, when less than twenty-five percent of the exterior of the structure is affected by the alteration or repair.
6. Painting, staining and similar maintenance or restorative work.
7. One-story detached accessory, nonhabitable structures, such as tool and storage sheds, playhouses and similar uses, provided that the floor area does not exceed 120 square feet and the structure is located greater than or equal to 10 feet from the nearest adjacent occupiable structure.
8. Accessory *structures* and buildings of an accessory character classified as Utility and Miscellaneous Group U (including Agricultural Structures) located more than 50 feet from a structure containing *occupiable* or *habitable space*.
9. Fences located more than 8 feet from a habitable structure.

PART 2—ADMINISTRATION AND ENFORCEMENT SECTION

SECTION 103—CODE COMPLIANCE AGENCY

The following section is hereby amended to read as follows:

103.1 Creation of agency. The Building Division is hereby created and the official in charge thereof shall be known as the *code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

103.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the *code official* shall have the authority to appoint a deputy *code official*, other related technical officers, inspectors and other employees. Such employees shall have powers as delegated by the *code official*.

SECTION 104—DUTIES AND POWERS OF THE CODE OFFICIAL

104.1 Powers and duties of the code official. The *code official* is hereby authorized to enforce the provisions of this code.

104.2 Determination of compliance. The *code official* shall have the authority to determine compliance with this code, to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures:

1. Shall be in compliance with the intent and purpose of this code.
2. Shall not have the effect of waiving requirements specifically provided for in this code.

104.2.1 Technical assistance. To determine compliance with this code, the *code official* is authorized to require the owner, the owner's authorized agent or the person in possession or control of the building or premises to provide a technical opinion and report.

104.2.1.1 Costs. A technical opinion and report shall be provided without charge to the jurisdiction.

104.2.1.2 Preparer qualifications. The technical opinion and report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the *code official*. The *code official* is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

104.2.1.3 Content. The technical opinion and report shall analyze the properties of the design, operation or use of the building or premises, the facilities and appurtenances situated thereon and fuel management to identify and propose necessary recommendations.

104.2.1.4 Tests. Where there is insufficient evidence of compliance with the provisions of this code, the *code official* shall have the authority to require tests as evidence of compliance. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized test standards, the *code official* shall approve the testing procedures. Such tests shall be performed by a party acceptable to the *code official*.

104.2.2 Alternative materials, design and methods. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*.

104.2.2.1 Approval authority. An alternative material, design or method shall be *approved* where the *code official* finds that the proposed alternative is satisfactory and complies with Sections 104.2.2.2 through 104.2.2.7, as applicable.

104.2.2.2 Application and disposition. Where required, a request to use an alternative material, design or method of construction shall be submitted in writing to the *code official* for approval. Where the alternative material, design or method of construction is not approved, the *code official* shall respond in writing, stating the reasons the alternative was not approved.

104.2.2.3 Compliance with code intent. An alternative material, design or method of construction shall comply with the intent of the provisions of this code.

104.2.2.4 Equivalency **criteria.** An alternative material, design or method of construction shall, for the purpose intended, be not less than the equivalent of that prescribed in this code with respect to all of the following, as applicable:

1. Quality.
2. Strength.
3. Effectiveness.
4. Durability.
5. Safety, other than fire safety.
6. Fire safety.

104.2.2.5 Tests. Tests conducted to demonstrate equivalency in support of an alternative material, design or method of construction application shall be of a scale that is sufficient to predict performance of the end use configuration. Tests shall be performed by a party acceptable to the *code official.*

104.2.2.5.1 Fire tests. Tests conducted to demonstrate equivalent fire safety in support of an alternative material, design or method of construction application shall be of a scale that is sufficient to predict fire safety performance of the end use configuration. Tests shall be performed by a party acceptable to the *code official*.

104.2.2.6 Reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall comply with Sections 104.2.2.6.1 and 104.2.2.6.2.

104.2.2.6.1 Evaluation reports. Evaluation reports shall be issued by an *approved* agency and use of the evaluation report shall require approval by the *code official* for the installation. The alternate material, design or method of construction and product evaluated shall be within the scope of the *code official*'s recognition of the *approved* agency. Criteria used for the evaluation shall be identified within the report and, where required, provided to the *code official*.

104.2.2.6.2 Other reports. Reports not complying with Section 104.2.2.6.1 shall describe criteria, including but not limited to any referenced testing or analysis, used to determine compliance with code intent and justify code equivalence. The report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the *code official*. The *code official* is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

104.2.2.7 Peer review. The *code official* is authorized to require submittal of a peer review report in conjunction with a request to use an alternative material, design or method of construction, prepared by a peer reviewer that is *approved* by the *code official*.

104.2.3 Modifications. Where there are practical difficulties involved in carrying out the provisions of this code, the *code official* shall have the authority to grant modifications for individual cases, provided that the *code official* shall first find that one or more special individual reasons make the strict letter of this code impractical, that the modification is in conformance with the intent and purpose of this code, and that such modification does not lessen health, life and fire safety requirements. The details of the written request and action granting modifications shall be recorded and entered into the files of the code enforcement agency.

104.3 Applications and permits. The *code official* is authorized to receive applications, review construction documents and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

104.4 Access to Property. For the purpose of inspecting and enforcing the provisions of this code and the terms and conditions of any permit issued under this code, the *code official* is authorized to enter upon private property at reasonable times and upon reasonable notice for the purpose of determining compliance with this code and to evaluate conditions relative to the permit application.

104.4.1 Authorization. The owner or occupant of the property having a permit under this code shall allow the *code official* access to the property to perform the required inspections. If access is denied, the *code official* shall apply to the Court with jurisdiction to seek authority to access the property.

104.5 Identification. The *code official* shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

104.6 Notices and orders. The *code official* shall issue all necessary notices or orders to ensure compliance with this code.

104.7 Official records. The *code official* shall keep official records as required by Sections 104.7.1 through 104.7.5. Such official records shall be retained for not less than 5 years or for as long as the structure or activity to which such records relate remains in existence, unless otherwise provided by other regulations.

104.7.1 Approvals. A record of approvals shall be maintained by the *code official* and shall be available for public inspection during business hours in accordance with applicable laws.

104.7.2 Inspections. The *code official* shall keep a record of each inspection made, including notices and orders issued, showing the findings and disposition of each.

104.7.3 Code alternatives and modifications. Application for alternative materials, design and methods of construction and equipment in accordance with Section 104.2.2; modifications in accordance with Section 104.2.3; and documentation of the final decision of the *code official* for either shall be in writing and shall be retained in the official records.

104.7.4 Tests. The *code official* shall keep a record of tests conducted to comply with Sections 104.2.1.4 and 104.2.2.5.

104.7.5 Fees. The *code official* shall keep a record of fees collected and refunded in accordance with Section 106.

104.8 Liability. The *code official*, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction, in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered personally liable, either civilly or criminally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act or by reason of any act or omission in the discharge of official duties.

104.8.1 Legal defense. Any suit or criminal complaint instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code or other laws or ordinances implemented through the enforcement of this code shall be defended by legal representatives of the jurisdiction until final termination of the proceedings. The *code official* or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code.

104.9 Approved materials and equipment. Materials, equipment and devices approved by the *code official* shall be constructed and installed in accordance with such approval.

104.9.1 Materials and equipment reuse. Materials, equipment and devices shall not be reused unless such elements are in good working order and *approved*.

104.10 Other agencies. When requested to do so by the *code official*, other officials of this jurisdiction shall assist and cooperate with the *code official* in the discharge of the duties required by this code.

SECTION 105—TEMPORARY USES, EQUIPMENT AND SYSTEMS

105.1 General. The *code official* is authorized to issue a permit for temporary uses, equipment and systems. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The *code official* is authorized to grant extensions for demonstrated cause.

105.2 Conformance. Temporary uses, equipment and systems shall conform to the requirements of this code as necessary to ensure health, safety and general welfare.

105.3 Temporary service utilities. The *code official* is authorized to give permission to temporarily supply service utilities.

105.4 Termination of approval. The *code official* is authorized to terminate such permit for temporary uses, equipment and systems and to order the same to be discontinued.

SECTION 106—FEES

The following section is hereby amended to read as follows:

106.1 General. Fees shall be in accordance with the fee schedule adopted by Larimer County.

SECTION 107—STOP WORK ORDER

107.1 Authority. Where the *code official* finds any work regulated by this code being performed in a manner contrary to the provisions of this code or in a dangerous or unsafe manner, the *code official* is authorized to issue a stop work order.

107.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume.

107.3 Emergencies. Where an emergency exists, the *code official* shall not be required to give a written notice prior to stopping the work.

107.4 Failure to comply. Any person who shall continue any work 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 fines established by the authority having jurisdiction.

The following section is hereby added to read in its entirety as follows:

SECTION 108 - CONSTRUCTION DOCUMENTS

108.1 Site plan. In addition to the requirements for plans in the *International Building Code*, *International Existing Building Code*, and *International Residential Code*, site plans shall include topography, landscape and vegetation details, and locations of structures or building envelopes. The *code official* is authorized to waive or modify the requirement for a site plan where the application for permit is for alteration or repair or where otherwise warranted.

108.2 Defensible Space Site Plans. Defensible space site plans shall be prepared and submitted to the *code official* for review and approval as part of the site plans required for a permit. The *code official* is authorized to waive or modify the requirement for a defensible space site plan where the application for permit is for alteration or repair or where otherwise warranted.

108.3 Other data and substantiation. Where required by the *code official*, the plans and specifications shall include classification of fuel loading, fuel model light, medium or heavy, and substantiating data to verify classification of fire-resistive vegetation.

Chapter 2 – Definitions

SECTION 201 GENERAL

201.1 Scope. Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code, have the meanings shown in this chapter.

201.2 Interchangeability. Words stated in the present tense include the future; words stated in the masculine gender include the feminine and neuter; and the singular number includes the plural and the plural the singular.

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in other International Codes, such terms shall have the meanings ascribed to them as in those codes.

201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have their ordinarily accepted meanings such as the context implies.

SECTION 202 DEFINITIONS

ACCESSORY STRUCTURE. A building or structure used to shelter or support any material, equipment, chattel or occupancy other than a habitable building.

AGRICULTURAL BUILDING. A structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products. This structure shall not be a place of human habitation or a place of employment where agricultural products are processed, treated or packaged, nor shall it be a place used by the public.

APPROVED. Acceptable to the *code official*.

The following definition is hereby added to read as follows:

AUTHORITY HAVING JURISDICTION (AHJ). The governmental agency, fire protection district or other entity charged with adopting, interpreting and administering this code.

BUILDING. Any structure intended for supporting or sheltering any occupancy.

CLASS A TESTS. Class A Tests are applicable to *roof coverings* that are expected to be effective against severe fire exposure, afford a high degree of fire protection to the *roof deck*, do not slip from position, and are not expected to present a flying brand hazard.

CODE OFFICIAL. The official designated by the jurisdiction to interpret and enforce this code, or the *code official*'s authorized representative.

DEFENSIBLE SPACE. An area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.

EMBELLISHMENTS. Elements incorporated in design and construction for ornamental or decorative purpose that are not integral to the structure or structural support.

FIRE INTENSITY CLASSIFICATION. The level of fire intensity identified for areas where significant fuel hazards and associated dangerous fire behavior may exist, based upon vegetative fuels, topography, weather conditions, and flame length value.

FIRE-RESISTANCE-RATED CONSTRUCTION. The use of materials and systems in the design and construction of a building or structure to safeguard against the spread of fire within a building or structure and the spread of fire to or from buildings or structures to the *wildland-urban interface* area.

FIRE-RETARDANT-TREATED WOOD. Fire-retardant-treated wood is any wood product that, when impregnated with chemicals by a pressure process or other means during manufacture, shall have, when tested in accordance with ASTM E84 or UL 723, a listed *flame spread index* of 25 or less. The ASTM E84 or UL723 test shall be continued for an additional 20-minute period and the flame front shall not progress more than 10.5 feet beyond the centerline of the burners at any time during the test.

FLAME SPREAD INDEX. A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E84.

FUEL MODIFICATION. A method of modifying fuel load by reducing the amount of nonfire-resistive vegetation or altering the type of vegetation to reduce the fuel load.

HABITABLE SPACE. A space in a building for living, sleeping, eating or cooking.

HEAVY TIMBER CONSTRUCTION. As described in Section 602.4 of the 2024 *International Building Code*.

HOME IGNITION ZONE. Home Ignition Zone is the home and the area around the home (or structure). The HIZ takes into account both the potential of the structure to ignite and the quality of *defensible space* surrounding it.

IGNITION-RESISTANT BUILDING MATERIAL. A type of building material that resists ignition or sustained flaming combustion sufficiently so as to reduce losses from wildfire exposure of burning embers and small flames.

IGNITION-RESISTANT VEGETATION. Plants that are less likely to readily ignite from a flame or other ignition source and produce fewer embers. While they can still be damaged by fire, their foliage and stems don't significantly contribute to the intensity of the fire.

LOG WALL CONSTRUCTION. A type of construction in which exterior walls are constructed of solid wood members and where the smallest horizontal dimension of each solid wood member is not less than 6 inches. Log wall construction shall follow requirements of ICC 400.

MULTILAYERED GLAZED PANELS. Window or door assemblies that consist of two or more independently glazed panels installed parallel to each other, having a sealed air gap in between, within a frame designed to fill completely the window or door opening in which the assembly is intended to be installed.

NONCOMBUSTIBLE. As applied to building construction material means a material that, in the form in which it is used, is either one of the following:

1. Material of which no part will ignite and burn when subjected to fire.
2. Any material conforming to ASTM E136 shall be considered noncombustible within the meaning of this section.
3. For the purposes of this code, fire-rated gypsum board tested in accordance with ASTM C1396 with no less than a 1-hour fire-resistance-rating with fire exposure from the outside only is considered a noncombustible material.

OCCUPIABLE SPACE. A room or enclosed space designed for human occupancy in which individuals congregate for amusement, education or similar purposes or in which occupants are engaged at labor.

ROOF ASSEMBLY. A system designed to provide weather protection and resistance to design loads. The system consists of a *roof covering* and *roof deck* or a single component serving as both the *roof covering* and the *roof deck*. A *roof assembly* can include an underlayment, thermal barrier, ignition barrier, insulation or a vapor retarder.

ROOF COVERING. The covering applied to the *roof deck* for weather resistance, fire classification or appearance.

ROOF DECK. The flat or sloped surface not including its supporting members or vertical supports.

SLOPE. The variation of terrain from the horizontal; the number of feet rise or fall per 100 feet measured horizontally, expressed as a percentage.

STRUCTURE. That which is built or constructed.

STRUCTURE IGNITION ZONE. Structure Ignition Zone is the structure and the area around the structure (or home). The SIZ takes into account both the potential of the structure to ignite and the quality of *defensible space* surrounding it.

TREE CROWN. The primary and secondary branches growing out from the main stem, together with twigs and foliage.

WILDLAND-URBAN INTERFACE. That geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

Chapter 3 – Wildfire Hazard Identification

SECTION 301 GENERAL

301.1 Scope. The provisions of this chapter provide methodology to establish and record wildfire hazard based on the findings of fact to be regulated by this code.

301.2 Objective. The objective of this chapter is to provide simple baseline criteria for determining *wildland-urban interface* areas based on the wildfire hazard.

SECTION 302 WILDLAND-URBAN INTERFACE AREA DESIGNATIONS

The following section is hereby amended to read as follows:

302.1 Declaration. Because of the history of and potential for large, destructive wildland fires, all of unincorporated Larimer County is deemed a *wildland-urban interface* area. Structures and parcels shall be constructed and maintained in accordance with the provisions for structure hardening of Chapter 4 and site and area requirements of Chapter 5.

SECTION 303 MAPPING AND APPLICABILITY

303.1 Mapping of Wildfire Hazard Areas.

Wildfire Hazard shall be recorded on official maps. These maps identify areas subject to the provisions of this code and shall be available for public inspection through an accessible online platform and at designated local government offices.

303.1.1 Map. This map shall be based on a combination of factors including, but not limited to, vegetative fuels, topography, local weather patterns, and fire behavior modeling data.

The following section is hereby amended to read as follows:

303.1.2 Locally Developed Mapping.

The AHJ may develop and adopt local maps designating wildfire hazard areas within its jurisdictional boundaries.

The following section is hereby deleted in its entirety:

~~**303.2 Fire Intensity Classification.**~~

The following section is hereby deleted in its entirety:

~~**303.2.1 Low Fire Intensity Classification.**~~

The following section is hereby deleted in its entirety:

~~**303.2.2 Moderate Fire Intensity Classification.**~~

The following section is hereby deleted in its entirety:

~~**303.2.3 High Intensity.**~~

The following section is hereby deleted in its entirety:

~~**303.3 Applicability of Code Provisions.**~~

SECTION 304 GROUND-TRUTHING

304.1 Purpose. This section establishes a process for owners or the owners authorized representative to request a ground-truthing review of their property's Wildfire Hazard or *fire intensity classification* as identified on state or locally adopted maps. The intent is to provide an opportunity to verify that mapping accurately reflects current, site-specific conditions.

The following section is hereby amended to read as follows:

304.2 Determination of Wildfire Hazard and Code Requirements. As determined by the *code official,* the *Wildfire Hazard Area* and associated requirements shall be based on a review of the vegetative fuels on the parcel including but not limited to topography, local weather patterns and fire behavior modeling data.

This determination shall be made based on existing conditions or conditions that have been established by a development plan approved by the local jurisdiction. Technical documentation shall be submitted in support of such request by a qualified wildfire professional and in accordance with Section 104.2.

Chapter 4 – Structure Hardening

SECTION 401 GENERAL

401.1 Scope. Exterior design and construction of new buildings and structures within the *wildland-urban interface* areas of Colorado shall be constructed in accordance with this chapter.

Exceptions:

1. Buildings of an accessory character classified as Group U occupancy (including *agricultural buildings*) of any size located at least 50 feet from a structure containing *occupiable* or *habitable space*.
2. One-story detached accessory, nonhabitable structures, such as tool and storage sheds, playhouses and similar uses, provided that the floor area does not exceed 120 square feet and the structure is located greater than or equal to 10 feet from the nearest adjacent occupiable structure.
3. The reconstruction, replacement, alteration, or repair of the exterior walls of an existing building, when less than 25 percent of the surface area of all exterior walls is affected.
4. The reconstruction, replacement, alteration, or repair of the exterior *roof covering* of an existing building, when less than 25 percent of the surface area of the exterior *roof covering* or an attachment thereto is affected.
5. Alterations or repairs to the exterior of an existing structure, or an attachment to it, when less than twenty-five percent of the exterior of the structure is affected by the alteration or repair.
6. Additions that do not increase the footprint of a structure by more than 500 square feet.

SECTION 402 BUILDING MATERIAL

402.1 Building material. Building materials shall comply with any one of the requirements in Section 402.2 through 402.4.

402.2 Noncombustible material. *Noncombustible* material shall comply with the definition of *noncombustible* materials in Section 202.

402.3 Fire-retardant-treated wood. *Fire-retardant-treated wood* shall be identified for exterior use and shall meet the requirements of Section 2303.2 of the 2024 *International Building Code*.

402.4 Ignition-resistant building material. Material shall be tested on the front and back faces in accordance with the extended ASTM E84 or UL 723 test, for a total test period of 30 minutes, or with the ASTM E2768 test. The materials shall bear identification showing the fire test results. Panel products shall be tested with a ripped or cut longitudinal gap of 1/8 inch. The materials, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723 for a test period of 30 minutes, or with ASTM E2768, shall comply with Sections 402.4.1 through 402.4.3.3. Materials or products which melt, drip or delaminate to the extent that the flame front is interrupted are not permitted.

Exception: Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019-inch thickness or corrosion-resistant steel at a minimum 0.0149 inch thickness shall not be required to be tested with a ripped or cut longitudinal gap.

402.4.1 Flame spread. The material shall exhibit a *flame spread index* not exceeding 25.

402.4.2 Flame front. The material shall exhibit a flame front that does not progress more than 10 feet 6 inches beyond the centerline of the burner at any time during the test.

402.4.3 Weathering. *Ignition-resistant building materials* shall maintain their performance in accordance with this section under conditions of use. The materials shall meet the performance requirements for weathering (including exposure to temperature, moisture and ultraviolet radiation) contained in Sections 402.4.3.1 through 402.4.3.3, as applicable to the materials and conditions of use.

402.4.3.1 Evaluation requirements for weathering. Fire-retardant-treated wood, wood-plastic composite materials and plastic lumber materials shall be evaluated after weathering in accordance with Method A “Test Method for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing” in ASTM D2898.

402.4.3.2 Wood-plastic composite materials. Wood-plastic composite materials shall also demonstrate acceptable fire performance after weathering by the following procedure: first testing in accordance with ASTM E1354 at an incident heat flux of 50 kW/m2 in the horizontal orientation, then weathering in accordance with ASTM D7032 and then retesting in accordance with ASTM E1354 and exhibiting an increase of no more than 10 percent in peak rate of heat release when compared to the peak heat release rate of the nonweathered material.

402.4.3.3 Plastic lumber materials. Plastic lumber materials shall also demonstrate acceptable fire performance after weathering by the following procedure: first testing in accordance with ASTM E1354 at an incident heat flux of 50 kW/m2 in the horizontal orientation, then weathering in accordance with ASTM D6662 and then retesting in accordance with ASTM E1354 and exhibiting an increase of no more than 10 percent in peak rate of heat release when compared to the peak heat release rate of the nonweathered material.

The following section is hereby amended to read as follows:
SECTION 403 STRUCTURE HARDENING

403.1 General. Structure hardening shall be in accordance with Sections 403.2 through 403.13 and shall apply to buildings and structures hereafter constructed, modified or relocated into or within areas of the *wildland-urban interface*. See also Sections 101.6-101.7.

403.2 Roofing. Roofs shall have a *roof covering* or *roof assembly* classified as Class A when tested in accordance with ASTM E108 or UL 790.

403.2.1 Flame and ember protection of roofs. For roof assemblies where the roof covering profile creates a space between the roof covering and roof deck, the space shall resist the entry of flames and embers by one or more of the following methods:

1. Firestopping with noncombustible material of the space between the roof covering and the roof deck.
2. Installation of one layer of cap sheet complying with ASTM D3909 over the combustible roof deck.
3. Installation of a listed Class A classified roof assembly.

403.2.2 Roof valley flashings. Valley flashings shall be not less than 0.019 inch (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36- inch-wide underlayment consisting of one layer of cap sheet complying with ASTM D3909 running the full length of the valley.

403.3 Gutters and downspouts. Gutters and downspouts shall be constructed of *noncombustible* material.

403.4 Ventilation Openings. Ventilation openings for enclosed attics, enclosed rafter spaces, and underfloor spaces shall be in accordance with Section 403.4.1 or Section 403.4.2 as applicable.

403.4.1 Performance Requirements. Ventilation openings shall be fully covered with listed vents, tested in accordance with ASTM E2886, to demonstrate compliance with all the following requirements:

1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
3. The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).

403.4.2 Prescriptive Requirements. Ventilation openings for enclosed attics, enclosed rafter spaces, and underfloor spaces shall be covered with *noncombustible* corrosion-resistant mesh with openings not to exceed ⅛-inch.

The following section is hereby deleted in its entirety and the subsequent sections renumbered to read as follows:
~~**SECTION 404 CLASS 2 STRUCTURE HARDENING**~~
~~**404.1 General.**~~

403.5 Protection of eaves. Eaves and soffits shall be protected on the exposed underside by *noncombustible material, ignition-resistant materials,* or by materials approved for not less than 1-hour *fire-resistance-rated construction*, *⅝-inch Type X drywall,* 2-inch nominal dimension lumber, or 1 inch nominal *fire-retardant-treated wood* or ¾ inch nominal fire-retardant-treated plywood, identified for exterior use and meeting the requirements of Section 2303.2 of the 2024 *International Building Code*. Fascias are required and shall be protected on the backside by *noncombustible material, ignition-resistant materials,* or by materials approved for not less than 1-hour *fire-resistance-rated construction, ⅝-inch Type X drywall,* or 2- inch nominal dimension lumber.

403.6 Exterior Walls. Exterior walls of buildings or structures shall be constructed with one of the following methods:

1. Exterior wall assemblies with a minimum of 1-hour fire-resistance rating, rated for exposure on the exterior side.
2. *Approved noncombustible materials.*
3. *Heavy timber* or *log wall construction.*
4. *Noncombustible* materials complying with Section 402.2 on the exterior side.
5. *Fire-retardant treated wood* complying with Section 402.3 on the exterior side. The *fire-retardant-treated wood* shall be labeled for exterior use and meet the requirements of Section 2303.2 of the 2024 *International Building Code*.
6. Ignition-resistant materials complying with Section 402.4 on the exterior side.

Such material shall extend from the top of the foundation to the underside of the eave or the underside of the roof sheathing.

Exceptions:

1. Exterior wall *embellishments* and architectural trim (exclusive of trim on exterior windows and doors) not to exceed 5 percent of the square footage of the exterior wall.
2. Roof or wall top cornice projections and similar assemblies.
3. Solid wood rafter tails and solid wood blocking installed between rafters having minimum dimension 2 inch nominal.

The following section is hereby amended to read as follows:

403.6.1 Exterior Wall Coverings. Exterior wall coverings shall be limited to the following:

1. *Noncombustible* materials.
2. *Fire-retardant-treated wood*.
3. *Ignition-resistant building materials*.

Exception: Where options 1 or 2 in section 403.6 are used, vinyl siding may be used as an exterior covering.

403.6.2 Flashing. A minimum of 6 inches of metal flashing or *noncombustible* material applied vertically between the wall sheathing and the exterior cladding shall be installed at the ground, decking, and roof intersections.

Combustible sheathing products exposed by the gap created at the base of the exterior walls, posts, or columns must be protected with *noncombustible material* or *ignition-resistant building materials* while still permitting drainage and moisture control from behind exterior cladding.

The following section is hereby amended to read as follows:

403.7 Underfloor enclosure. Buildings or structures shall have underfloor areas enclosed to the ground or comply with exterior walls in accordance with Section 403.6.

403.8 Decking. Unenclosed decks shall have the deck walking surface constructed of one of the following:

1. *Approved noncombustible* materials
2. Class A rated material.

   Exception: Composite decking material with a minimum of Class B rating

3. *Fire-retardant-treated wood* identified for exterior use and meeting the requirements of Section 2303.2 of the 2024 *International Building Code*
4. *Ignition-resistant building materials* in accordance with Section 402.4.

The following section is hereby amended to read as follows:

403.9 Appendages and Projections. Appendages and projections shall be constructed in accordance with Section 403.6.

403.10 Exterior Glazing. Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, *multilayered glazed panels*, glass block or have a fire protection rating of not less than 20 minutes.

The following section is hereby amended to read as follows:

403.11 Exterior Doors. Exterior doors shall be *approved noncombustible* construction, solid core wood not less than 1 ¾-inches thick, or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Section 403.10.

Exception: Vehicle access doors.

403.12 Vehicle Access Door Perimeter Gap. Exterior vehicle access doors shall resist the intrusion of embers from entering by preventing gaps between doors and door openings, at the head, sill, and jamb of doors from exceeding ⅛ inch as approved by the AHJ.

Gaps between doors and door openings shall be controlled by one of the following methods:

1. Weather-stripping products made of materials that: (a) have been tested for tensile strength in accordance with ASTM D638 (Standard Test Method for Tensile Properties of Plastics) after exposure to ASTM G155 (Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials) for a period of 2,000 hours, when the maximum allowable difference in tensile strength values between exposed and non-exposed samples does not exceed 10 percent; and (b) exhibit a V-2 or better flammability rating when tested to UL 94 (Standards for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances).
2. Door overlaps onto jambs and headers.
3. Garage door jambs and headers covered with metal flashing.

The following section is hereby amended to read as follows:

403.13 Detached Accessory Structures. Detached *accessory structures* located less than 50 feet from a building containing *habitable* or *occupiable space* shall have exterior walls constructed in accordance with Sections 403.6 through 403.6.2.

The following section is hereby amended to read as follows:

403.13.1 Underfloor areas. Where the detached structure is located and constructed so that the structure or any portion thereof projects over a descending *slope* surface greater than 10 percent, the area below the structure shall have underfloor areas enclosed to within 6 inches of the ground, with exterior wall construction in accordance with Section 403.6 or underfloor protection in accordance with Section 403.7 or with ⅛-inch metal corrosion-resistant screen with a hardened zone within 5 feet.

Exception: The enclosure shall not be required where the underside of exposed floors and exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour *fire-resistance-rated construction, heavy timber construction, noncombustible* materials on the exterior side, or *fire-retardant-treated wood* on the exterior side. The *fire-retardant-treated wood* shall be labeled for exterior use and meet the requirements of Section 2303.2 of the 2024 *International Building Code.*

Chapter 5 – Site and Area Requirements

SECTION 501 GENERAL

501.1 Scope. The provisions of this chapter shall apply to parcels subject to this code.

501.2 Reference. As needed, the *code official* shall refer to the Home Ignition Zone (HIZ) Guide as developed by the Colorado State Forest Service.

Where conflicts occur between provisions of this code and the HIZ Guide, the provisions of this code shall govern. The provisions of this code, as applicable, shall take precedence over the provisions in the referenced standard.

The following section is hereby amended to read as follows:

SECTION 502 REQUIREMENTS

502.1 Structure Ignition Zone 1 (0-5 feet): Immediate Zone

502.1.1 Objective. This zone is designed to reduce or eliminate ember ignition and direct flame contact with the structure, decks, stairs, and attachments.

The following section is hereby amended to read as follows:

502.1.2 Materials. Use *noncombustible*, hard surface materials in this zone, such as rock, gravel, sand, concrete, bare earth or stone/concrete pavers.

The following section is hereby amended to read as follows:

502.1.3 Plantings. Remove all plantings including shrubs, slash, combustible mulch and other woody debris.

502.1.4 Trees. There shall be no planting of new trees in the immediate zone. Mature trees of no less than 10-inch diameter at 4.5 feet above ground level may be maintained.

Tree crowns extending to within 10 feet of any structure shall be pruned to maintain a minimum clearance of 10 feet.

Prune tree branches to a height of 6-10 feet from the ground or a third of the total height of the tree, whichever is less.

The following section is hereby amended to read in its entirety as follows:

502.2 Structure Ignition Zone 2 (5-30 feet) Intermediate Zone

502.2.1 Objective. This zone is designed to give an approaching fire less fuel, which will help reduce its intensity as it gets nearer to structures.

502.2.2 Materials. Ignition-resistant plantings, per an approved list by the AHJ that is not less than that created by the Colorado State Forest Service, are allowed in the Intermediate Zone. Within the *fuel modification* area, hazardous dead plant material must be removed from live vegetation.

502.2.3 Fuels Accumulation. Avoid large accumulations of surface fuels such as logs, branches, slash and combustible mulch.

502.2.4 Trees. *Tree crowns* extending to within 10 feet of any structure shall be pruned to maintain a minimum clearance of 10 feet. Prune tree branches to a height of 6-10 feet from the ground or a third of the total height of the tree, whichever is less.

502.2.4.1 Tree Spacing. *Tree crowns* within this zone shall be spaced to prevent structure ignition and promote fuel discontinuity to limit fire spread.

502.2.5 Shrubs. Shrub groups within this zone shall be spaced to prevent structure ignition. Shrubs shall be at least 10 feet away from the edge of tree branches.

The following section is hereby amended to read in its entirety as follows:

502.3 Structure Ignition Zone 3 (30-100 feet) Expanded Zone

502.3.1 Objective. This zone focuses on mitigation that keeps fire on the ground.

502.3.1.1 Tree Spacing. *Tree crowns* within this zone shall be spaced at a minimum of 6-10 feet.

The following section is hereby renumbered to read in its entirety as follows:

502.4 Site Signage

502.4.1 Marking of roads. *Approved* signs or other *approved* notices shall be provided and maintained for access roads and driveways to identify such roads and prohibit the obstruction thereof.

502.4.2 Marking of fire protection equipment. Fire protection equipment and fire hydrants shall be clearly identified in a manner *approved* by the *code official* to prevent obstruction.

502.4.3 Address markers. Buildings shall have a permanently posted address, which shall be placed at each driveway entrance and be visible from both directions of travel along the road. In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter, and the address shall be visible and legible from the road on which the address is located in a manner *approved* by the *code official*.

The following section is hereby renumbered to read in its entirety as follows:

502.5 Retaining Walls

502.5.1 Retaining Walls. Retaining walls shall be constructed with either *noncombustible* or ignition-resistant materials when any of the following conditions exist:

1. The retaining wall is within 8 feet of a structure regulated by this code or up to the property line when the property line is less than 8 feet away from the structure.
2. The retaining wall is integral to the support of a structure regulated by this code.
3. The retaining wall is integral to the egress from a structure regulated by this code to a public way, easement, or private road.

The following section is hereby renumbered to read in its entirety as follows:

502.6 Fencing

502.6.1 Fencing. Fencing within 8 feet of a structure regulated by this code or up to the property line when the property line is less than 8 feet away from the structure shall be constructed with *noncombustible* or ignition-resistant materials.

Exception: Vinyl fencing may be allowed.

The following section is hereby deleted in its entirety:

~~**SECTION 503 CLASS 2 REQUIREMENTS**~~

The following appendix is hereby deleted in its entirety:

~~**Appendix A: PERMITS**~~

The following appendix is hereby deleted in its entirety:

~~**Appendix B: CONSTRUCTION DOCUMENTS**~~

The following appendix is hereby deleted in its entirety:

~~**Appendix C: INSPECTION AND ENFORCEMENT**~~