

COUNTY OF LARIMER, COLORADO
DRAFT AMENDMENTS TO THE
2021
INTERNATIONAL BUILDING CODE
INTERNATIONAL ENERGY CONSERVATION CODE
INTERNATIONAL EXISTING BUILDING CODE
INTERNATIONAL FUEL GAS CODE
INTERNATIONAL MECHANICAL CODE
INTERNATIONAL PLUMBING CODE
INTERNATIONAL PROPERTY MAINTENANCE CODE
INTERNATIONAL SWIMMING POOL AND SPA CODE
2020 NATIONAL ELECTRICAL CODE



EFFECTIVE DATE: TBD 2022

Amendments to the 2021 International Building Code,

**2021 International Energy Conservation Code,
2021 International Existing Building Code,
2021 International Fuel Gas Code,
2021 International Mechanical Code,
2021 International Plumbing Code,
2021 International Property Maintenance Code,
2021 International Swimming Pool and Spa Code,
and 2020 National Electrical Code.**

WHEREAS, the Chief Building Official of Larimer County, the Board of Appeals, and the Larimer County Planning Commission have recommended that the Board of County Commissioners adopt the 2021 International Codes named above with certain amendments, concurrent with the repealing of those portions of currently adopted 2018 International Codes that are to be superseded by the 2021 International Codes; and

WHEREAS, the said Board has found that said adoption would be in the best interest of the people of Larimer County, after a duly publicized public hearing on this matter;

NOW, THEREFORE, BE IT RESOLVED, that the 2021 International Building Code, 2021 International Energy Conservation Code, 2021 International Existing Building Code, 2021 International Fuel Gas Code, 2021 International Mechanical Code, 2021 International Plumbing Code, 2021 International Property Maintenance Code, 2021 International Swimming Pool and Spa Code and Amendments thereto are hereby adopted and shall be part of the Larimer County Building Code effective TBD, 2022. The 2018 International Codes and their amendments are hereby repealed.

IT IS FURTHER RESOLVED that the Deputy Clerk of this Board shall forthwith cause a certified copy of this resolution with revised amendments to be filed with the Clerk and Recorder for the County of Larimer.

Dated this TBD, 2021

BOARD OF COMMISSIONERS OF
LARIMER COUNTY COLORADO

By: _____
Chairman

(SEAL)
ATTEST:

Date: _____

Deputy Clerk
APPROVED AS TO FORM

County Attorney

2021 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*, 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 *International Private Sewage Disposal Code* 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 system.

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; light, ventilation, space heating, sanitation, 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 as follows:

101.4.8 Electrical. The provisions of the latest edition of the National Electrical Code as adopted by the Colorado Electrical Board 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:

103.1 Creation of enforcement agency. The Building Division is hereby created and the official in charge 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 as follows:

103.2 Appointment. The building official shall be appointed by the chief appointing authority if the jurisdiction Director of the Community Development Department.

The following section is hereby amended to read as follows:

104.2.1 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 building official County Engineer shall determine if the proposed work constitutes substantial improvement or repair of substantial damage. Where the building official County Engineer determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by this code, the building official shall require the building to meet the requirements of Section 1612 or Section R322 of the *International Residential Code*, as applicable the Larimer County Land Use Code.

The following section is hereby amended to read as follows:

104.10.1 Flood hazard areas.

The building official **County Engineer** shall not grant modifications to any provision required in flood hazard areas as established by Section 1612.3 ~~unless a determination has been made that:~~ **without the granting of a variance to such provisions by the Floodplain Review Board.**

- ~~1. A showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render the elevation standards of Section 1612 inappropriate.~~
- ~~2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.~~
- ~~3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.~~
- ~~4. A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.~~
5. Submission to the applicant of written notice specifying the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the design flood elevation increases risks to life and property. 104.10.1 Flood Hazard areas.

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

105.1.1 Annual permit. Smoke alarms. When work requiring a permit occurs within Group I-1 and R occupancies, smoke alarms shall be installed in accordance with Section 902.2.11.

Exception: Work involving the exterior surfaces of such buildings, 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 in its entirety to read as follows:

105.1.2 Annual permit records. Carbon monoxide detection. When work requiring a permit occurs within Group I-1, I-2, I-4 and R occupancies, and within classrooms of Group E occupancies, carbon monoxide detection shall be provided in accordance with Section 915.

Exception: Work involving the exterior surfaces of such buildings, 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 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 m²) **and there are no utilities installed.**
2. Fences not over 7 feet (2134 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from ~~the bottom of the footing to the top of the wall,~~ 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 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.
12. Window awnings in Group R-3 and U occupancies, supported by an exterior wall that do not project more than 54 inches (1372 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 (1753 mm) in height.

14. Decks not exceeding 200 square feet (18.58 m²) in area that are not more than 30 inches (762 mm) above grade, are not attached to a building, and do not serve an exit door required by Chapter 10.
15. Roofing repair or replacement work not exceeding one square (100 square feet) of covering per building.
16. Replacement of nonstructural siding when the removal of siding is performed in accordance with State laws regarding asbestos and lead paint.
17. Window or door replacement requiring no structural alterations.
18. Decorative fountains and pools which cannot contain water more than twenty-four (24) inches (610 mm) deep.

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 water closets 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

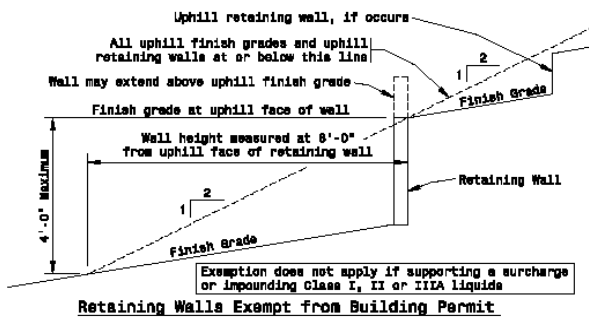


Figure 105.2.4

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 90 **180** days each. The extension shall be requested in writing and justifiable cause demonstrated.

The following section is hereby added to read as follows:

R105.8 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:

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, ~~as "Reviewed for Code Compliance,"~~ indicating the approved permit number. One set of construction documents so reviewed shall be retained by the building 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 building official or a duly authorized representative.

The following section is hereby added to read as follows:

109.7 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:

110.3.2.1 Underground inspection. Underground inspections shall be made after trenches or ditches are excavated and bedded, piping, tubing, ducts, and electrical wiring is installed, and before backfill is put in place. 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 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 approved, ~~to be concealed are complete.~~

The following section is hereby added to read as follows:

110.3.4.1 Rough-in inspections. Rough-in inspections shall be made after the roof, framing, fireblocking, firestopping, draftstopping and bracing is in place, chimneys, vents, electrical, plumbing, heating, pipes, and ducts, are roughed-in, and prior to the installation of wall or ceiling membranes.

The following section is hereby amended to read as follows:

110.3.9 Energy efficiency inspections. Inspections shall be made to determine compliance with Chapter 13 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, and HVAC and water-heating equipment efficiency, air sealing, plumbing protection, lighting system controls, components and meters, installation and proper operation of all required building controls, and documentation verifying activities associated with required building commissioning in accordance with Section C408.

The following section is added to read as follows:

110.7 Testing. Plumbing, fuel gas, mechanical, and electrical work and systems shall be tested as required in applicable codes and in accordance with Sections 110.7.1 through 110.7.3. Tests shall be made by the permit holder and observed by the code official.

The following section is added to read as follows:

110.7.1.1 New, altered, extended, or repaired systems. New plumbing, fuel gas, mechanical, and electrical systems and parts of existing systems that have been altered, extended, renovated, or repaired shall be tested as prescribed herein to disclose leaks and defects, except that testing is not required in the following cases:

The following section is added to read as follows:

110.7.2 Equipment, material, and labor for system tests. Equipment, material, and labor required for testing a plumbing, fuel gas, mechanical, and electrical system or part thereof shall be furnished by the permit holder.

The following section is added to read as follows:

110.7.3 Reinspection and testing. Where any work or installation does not pass any initial test or inspection, the necessary corrections shall be made to comply with this code. The work or installation shall then be resubmitted to the code official for inspection and testing.

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. ~~The building official shall set a time period during which the temporary certificate of occupancy is valid. 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 as 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 immediate action in accordance with the decision of the Board of Appeals.

Chapter 2 Definitions

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

202 DEFINITIONS

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.

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 - 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 International Residential 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.

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 Five or fewer Children in a dwelling unit. A facility such as the above within a *dwelling unit* and having five or fewer 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 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)

Exceptions:

1. Short-term rentals shall comply with this code or the International Residential Code.
2. Resort lodge cottages shall comply with this code or the International Residential Code.

The following section is hereby amended to read as follows:

310.3 Residential Group R-2. Residential Group R-2 occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses
Congregate living facilities (nontransient) with more than 16 occupants
Boarding houses (nontransient)
Convents

Dormitories
Fraternities and sororities
Monasteries
Hotels (nontransient)
Live/work units
Motels (nontransient)
Vacation timeshare properties

Exceptions:

1. Short-term rentals shall comply with this code or the International Residential Code.
2. Resort lodge cottages shall comply with this code or the International Residential Code.

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* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or Section P2904 of 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 and 10 or fewer total occupants shall be permitted to be constructed in accordance with the *International Residential Code*, provided that an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or Section P2904 of the *International Residential Code*.

The following section is hereby amended to read as follows:

311.1.1 Accessory storage spaces. A room or space used for storage purposes that is accessory to another occupancy and not more than 25% of the square footage of that occupancy shall be classified as part of that occupancy.

Chapter 4 Special Detailed Occupancies Based on Occupancy and Use

The following section is hereby added to read as follows:

420.12 Electric Vehicle capability. All new dwelling units with an attached garage or carport shall be provided with an empty conduit 1" (25.4 mm) minimum in diameter, installed from the electrical panel board to a junction box in a readily accessible location in the dwelling unit's garage or carport for a future charging station at a likely vehicle parking space, capable of supporting a 50-amp, 208/240-volt outlet.

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 m³/(s × m²)] 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 (9000 mg/m³).
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/m³).

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 number 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.

The following section is hereby amended to read as follows:

508.5 Live/work units. A live/work unit shall comply with Sections 508.5 through 508.5.11.

Exception: Dwelling or sleeping units that include an office that is less than ~~40~~ **20** percent of the area of the dwelling unit are permitted to be classified as dwelling units with accessory occupancies in accordance with Section 508.2.

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.**

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 ~~42,000~~ **5,000** square feet (~~4145~~ **464.5 m²**).
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 ~~42,000~~ **5,000** square feet (~~4145~~ **464.5 m²**).
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 ~~42,000~~ **5,000** square feet (~~4145~~ **464.5 m²**).
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 added to read as follows:

903.2.2.1 Group B. An automatic sprinkler system shall be provided for fire areas containing Group B occupancies when the fire area exceeds 5,000 square feet (4644.5 m²).

The following section is hereby amended to read as follows:

903.2.2.2 Ambulatory care facilities.

An *automatic sprinkler system* shall be installed throughout the entire floor containing an *ambulatory care facility* where either of the following conditions exist at any time:

1. Four or more care recipients are *incapable of self-preservation*.
2. One or more care recipients that are *incapable of self-preservation* are located at other than the *level of exit discharge* serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor as well as all floors below where such care is provided, and all floors between the level of ambulatory care and the nearest *level of exit discharge*, **the level of exit discharge**, and all floors below the *level of exit discharge*.

Exception: Floors classified as an *open parking garage* are not required to be sprinklered.

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 ~~12,000~~ **5,000** square feet (~~1115~~ **464.5 m²**) 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 ~~12,000~~ **5,000** square feet (~~1115~~ **464.5 m²**).
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 m²).

A new section is hereby added to read as follows:

903.2.4.2 Group F-2. An *automatic sprinkler system* shall be provided throughout all 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 m²).
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 installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1, Condition 1 facilities.~~
2. 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 m²)**.
3. 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 exist:

1. A Group M *fire area* exceeds ~~12,000~~ **5,000** square feet (~~1115~~ **464.5 m²**).
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 (2230 m²).

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 exist:

1. A Group S-1 fire area exceeds ~~12,000~~ 5,000 square feet (~~1115~~ 464.5 m²)
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 (2230 m²).
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 m²).

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 ~~10,000~~ 5,000 square feet (~~929~~ 464.5 m²).
2. Buildings not more than one story above *grade plane*, with a fire area containing a repair garage exceeding ~~42,000~~ 5,000 square feet (~~1115~~ 464.5 m²).
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 m²).

The following section is hereby amended to read as follows:

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

1. Where the Group S-2 fire area of the enclosed parking garage in accordance with Section 406.6 exceeds ~~12,000~~ 5,000 square feet (~~1115~~ 464.5 m²).
2. Where the 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 the an open parking garage in accordance with Section 406.5 exceeds 48,000 square feet (4460 m²).
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, or where walls, partitions or other obstructions are installed that restrict the application of water from hose streams, the *basement* shall be equipped throughout with an approved automatic sprinkler system.

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

903.3.1.2.3 Attics.

5. In buildings of other than 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 and NFPA 72. 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 exceptions 7 and 8 are 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 that is equally spaced between the interior floor level above and exterior landing below, provided that the step has a minimum tread depth of 12 inches, a maximum riser height of 7 ¾ inches (19.68cm), and a minimum width equal to the door width, and further provided that 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 also comply with Section 2407.

The following section is hereby amended to read as follows:

1015.8 Window openings. Windows in Group R-2 and R-3 buildings including dwelling units, where the top of the sill of an operable window opening is located less than 36 24 inches (944 610 mm) above the finished floor and more than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

The following section is hereby added to read as follows:

1015.9 Below grade openings. All area wells, stair wells and light wells attached to any building that are located less than thirty-six (36) inches (914.4 mm) from the nearest intended walking surface and deeper than thirty (30) inches (762 mm) below the surrounding ground level, creating an opening greater than twenty-four (24) inches (609.6 mm) measured perpendicular from the building and with side walls of such well having a slope steeper than two horizontal to one vertical, shall be provided with guards complying with section around the entire opening, or be provided with an equivalent barrier. An intended walking surface is a sidewalk, pathway, patio slab, deck or similar element.

EXCEPTIONS:

1. Guards are not required on the access side of stairways.
2. Area wells provided for emergency escape and rescue openings may be protected with grilles or covers complying with Section 1031.6 of this code.
3. Grilles or covers may be placed over stairways and other openings used exclusively for service access.

The following section is hereby amended and Exception #5 is deleted to read as follows (the first four exceptions are unchanged):

1031.2 Where required. In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in the following occupancies:

1. Group R-2 occupancies located in stories with only one exit or access to only one exit as permitted by Tables 1006.3.4(1) and 1006.3.4(2).
2. Group R-3 and R-4 occupancies.

Basements, and sleeping rooms, habitable lofts and mezzanines below the fourth story above grade plane shall have not fewer than one emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:

5. Within individual dwelling and sleeping units in Groups R-2 and R-3, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:

- 5.1. One means of egress and one emergency escape and rescue opening.
- 5.2. Two means of egress.

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.

Exception:

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 11 Accessibility

The following section is hereby amended to read as follows:

1108.6 Group R. Accessible units, Type A units and Type B units shall be provided in Group R occupancies in accordance with Sections 1108.6.1 through 1108.6.4. Group R occupancies shall be provided with accessible dwelling units, guest rooms and other elements as specified in the 2003 Colorado Revised Statutes Title 9 Article 5 Section 105 or as subsequently amended by statute.

Chapter 14 Exterior Walls

The following section is hereby amended to read as follows:

1402.6 Flood resistance. For buildings in flood hazard areas as established in Section 1612.3, exterior walls extending below the elevation required by Section 1612 shall be constructed with flood-damage-resistant materials. Building construction shall comply with the requirements of the Larimer County Land Use Code.

The following section is hereby added to read as follows:

1403.9.1 Vinyl siding on new buildings. Vinyl sidings on new 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:

1403.12.3 Polypropylene siding on new buildings. Polypropylene on new buildings 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 amended to read as follows:

1502.1 General. All buildings shall have a controlled method of water disposal from roofs that will collect and discharge roof drainage to the ground surface at least 5 feet (1524 mm) from foundation walls or to an approved drainage system. Design and installation of roof drainage systems shall comply with this section, Section 1611 of this code and Chapter 11 of the International Plumbing Code.

The following section is hereby added to read as follows:

1504.8.1 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 tile, 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 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:

1505.1 General. Roof assemblies shall be divided into the classes defined in this section. 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. The minimum roof coverings installed on buildings shall comply with Table 1505.1 based on the type of construction of the building. Except as otherwise allowed, roofs shall be covered with materials listed as Class A.

Exceptions:

1. Skylights and sloped glazing that comply with Chapter 24 or Section 2610.
2. Noncombustible roof coverings as defined in Section 1507.3, 1507.4, and 1507.5 may be applied in accordance with the manufacturer's specifications in place of a fire-retardant roofing assembly.
3. Any Class B or Class C roof covering may be installed on any new construction that is added to an existing building classified as a Group R, Division 3 or Group U Occupancy containing Class B or Class C roof covering, provided the roof extremities of such existing building and new construction are located a minimum distance of 5 feet from the nearest adjacent property line and a minimum distance of 10 feet from any other building. Any roof covering shall have a minimum rating of Class B for buildings located in the Wildfire Hazard Area and a minimum rating of Class C outside the Wildfire Hazard Area.

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

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 comply with Table Section 1505.1 based on the type of construction of the building.

The following section is hereby amended to read as follows:

1507.1.2 Ice barriers. In areas where there has been a history of ice forming along the eaves causing a backup of water, 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:

1511.2.3 Weather protection. Provisions such as louvers, louver blades or flashing shall be made to protect the mechanical and electrical equipment and the building interior from the elements. Mechanical units, ducts, piping or structures installed or replaced on roofs shall be being properly supported by curbs, pads, bases or piers which shall be flashed to the roofing in a watertight manner. All unsupported sections of mechanical equipment shall be a minimum of twelve (12) inches (304.8 mm) above the plane of the roof so that they will not obstruct the re-roofing process. Mechanical units shall properly connect to heating, air handling, refrigeration and ventilation equipment, including fans, blowers, and similar types of equipment. Units shall be so located that proper drainage from the roof will not be blocked or impeded. Roof openings surrounded by curbs shall be sheathed over solidly and covered with a minimum of twenty-six (26) gauge (0.48 mm) metal approved for the use, or of equal material. All seams and mitered corners shall be constructed in a watertight manner. Such curbs shall be a minimum of nine (9) inches (228.6 mm) in height.

The following section is hereby amended to read as follows:

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. No portion of an existing nonrated roof covering may be permanently replaced or covered with more than one square of nonrated roof covering. Any existing roof covering system may be replaced with a roof covering of the same materials and classification, provided the replacement roof covering has a minimum rating of Class B for buildings located in the Wildfire Hazard Area and a minimum rating of Class C outside the Wildfire Hazard Area.

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.
- L= Live load.
- L_r = Roof live load.

- 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) (km/hr) where applicable.
- V= Basic design wind speeds, miles per hour (mph) (km/hr) determined from Figures 1609.3(1) through 1609.3(4) or ASCE 7, in accordance with Section 1609.3.
- 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 by amending Exception #7 to read as follows:

1603.1 General Construction

Exception: Construction documents 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 .
3. Basic design wind speed, V, miles per hour (mph) (km/hr) 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: 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. In areas where the ground snow load, p_g , exceeds 10 pounds per square foot (psf) (0.479 kN/m²), 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_r .
2. Snow exposure factor, C_e .
3. Snow load importance factor, I_s .
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_r exceeds 20 psf (0.96 kN/m²).
7. Width of snow drift(s), w .

The following entry in Table 1604.5 is hereby amended to read as follows (remainder of table unchanged):

TABLE 1604.5 RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY	NATURE OF OCCUPANCY
III	Power-generating stations, communications towers and facilities, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category IV.

The following section is amended to read as follows:

1608.2 Ground Snow Loads.

The ground snow loads to be used in determining the design snow loads for roofs shall be determined in accordance with ASCE 7 or Figures 1608.2(1) and 1608.2(2) for the contiguous United States and Table 1608.2 for Alaska. Site-specific case studies shall be made in areas designated "CS" in Figures 1608.2(1) and 1608.2(2). Ground snow loads for sites at elevations above the limits indicated in Figures 1608.2(1) and 1608.2(2) and for all sites within the CS areas shall be approved. Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2-percent annual probability of being exceeded (50-year mean recurrence interval). Snow loads are zero for Hawaii, except in mountainous regions as approved by the building official. The design ground snow load shall comply with the Colorado Design Snow Loads Report and Map, published by the Structural Engineers Association of Colorado (dated May 6, 2015) or the table below. The design roof snow load values shall be determined from Section 1608 of the IBC, including all applicable factors, and loading and drifting considerations of ASCE 7, Chapter 7, but in no case shall the final design roof snow load be less than a uniformly distributed load of 30 psf.

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

Ground Elevation does not exceed (feet)	Ground Snow Load P_g (psf)
5,000	35
6,000	45
6,500	50
7,000	60
8,000	70
9,000	100
10,000	140

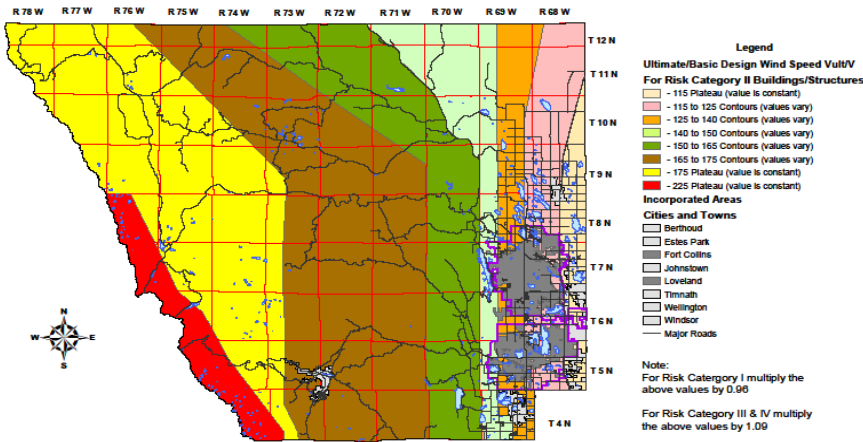
Ground Snow Load Table Notes:
Ground snow load (p_g) may be linearly interpolated between tabulated values.

For ground elevations above 10,000 feet, the ground snow load (P_g) shall be determined from the Colorado Design Snow Loads Report and Map published by the Structural Engineers Association of Colorado (dated May 6, 2015).

The following section is hereby amended to read as follows:
1609.3 Basic Design Wind Speed.

The basic design wind speed, V , in mph, for the determination of the site wind loads shall be determined by Figures 1609.3(1) through 1609.3(12). The basic design wind speed, V , for use in the design of Risk Category II buildings and structures shall be obtained from Figures 1609.3(1), 1609.3(5) and 1609.3(6). The basic design wind speed, V , for use in the design of Risk Category III buildings and structures shall be obtained from Figures 1609.3(2), 1609.3(7) and 1609.3(8). The basic design wind speed, V , for use in the design of Risk Category IV buildings and structures shall be obtained from Figures 1609.3(3), 1609.3(9) and 1609.3(10). The basic design wind speed, V , for use in the design of Risk Category I buildings and structures shall be obtained from Figures 1609.3(4), 1609.3(11) and 1609.3(12). The basic design wind speed, V , for the special wind regions indicated near mountainous terrain and near gorges shall be in accordance with local jurisdiction requirements. The basic design wind speeds, V , determined by the local jurisdiction shall be in accordance with Chapter 26 of ASCE 7. In nonhurricane-prone regions, when the basic design wind speed, V , is estimated from regional climatic data, the basic design wind speed, V , shall be determined in accordance with Chapter 26 of ASCE 7, comply with the Colorado Front Range Gust Map – ASCE 7-10 Compatible, published by the Structural Engineers Association of Colorado (dated November 18, 2013) or the Larimer County Basic Design Wind Speed Map

Larimer County Ultimate/Basic Design Wind Speed Map



Ultimate Design Wind Speed and Vult are unchanged in the 2018 IRC, but were changed to Basic Design Wind Speed/V in the 2018 IBC.

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 in Section 1612.3 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 the flood hazard area shall comply with the requirements of the Larimer County Land Use Code.

The following sections 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 amended to read as follows:

1613.2 Seismic ground motion values. Except as noted below, seismic ground motion values shall be determined in accordance with this section. 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

The following section is hereby amended to read as follows:

1614.1 General. Ice-sensitive structures shall be designed for $\frac{1}{2}$ inch atmospheric ice loads (Di) in accordance with Chapter 10 of ASCE 7.

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 below the frost line of the locality 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.
2. Area of 600 square feet (56 m²) or less for light-frame construction or 400 square feet (37 m²) or less for other than light-frame construction.
3. Eave height of 10 feet (3048 mm) or less.

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

The following section is hereby added to read as follows:

1811 Radon-resistant construction. Newly constructed buildings with I-1, I-2 nursing homes, R-2, R-3, and R-4 occupancies shall provide radon reduction systems complying with the 2021 International Residential Code, Appendix AF, as amended by Larimer County.

Chapter 21 Masonry

The following section is hereby added to read as follows:

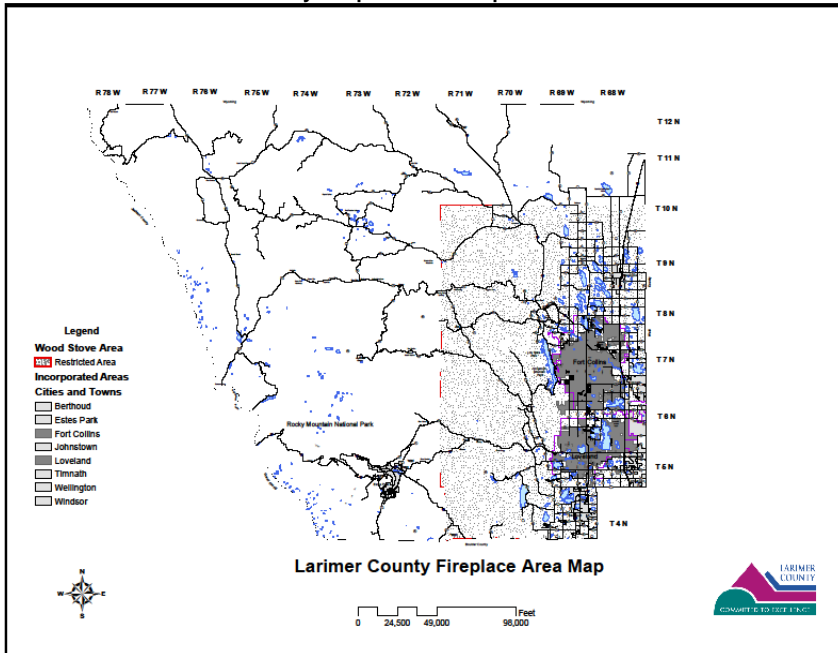
2111.15 Fireplace Installation.

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 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 24 Glass and Glazing

The following section is hereby amended to read as follows:

2406.4.7 Glazing adjacent to the bottom stairway landings. Glazing adjacent to the stair landings at the bottom of a stairway where the glazing is less than 60 36 inches (1524 mm) above the landing and within a 60-inch (1524 mm) horizontal arc that is less than 180 degrees (3.14 rad) from the bottom tread nosing shall be considered to be a hazardous location.

Exception: Glazing that is protected by a guard complying with Sections 1015 and 1607.9 where the plane of the glass is greater than 18 inches (457 mm) from the guard.

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 sex.

Exceptions:

1. Separate facilities shall not be required for *dwelling units* and *sleeping units*.
2. Separate facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of ~~45~~ **25** or fewer.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
4. ~~Separate facilities shall not be required in business occupancies in which the maximum occupant load is 25 or fewer.~~
5. Separate facilities shall not be required to be designated by sex where single-user toilets rooms are provided in accordance with Section 2902.1.2.
6. Separate facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by both sexes and privacy for water closets are installed in accordance with Section 405.3.4 of the International Plumbing Code. Urinals shall be located in an area visually separated from the remainder of the facility or each urinal that is provided shall be located in a stall.

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 ~~45~~ **25** or fewer.

Chapter 31 Special Construction

This section is hereby deleted as follows:

SECTION 3113 RELOCATABLE BUILDINGS

The following chapter is hereby added to read as follows:

Chapter 36 Wildfire Hazard Mitigation Requirements

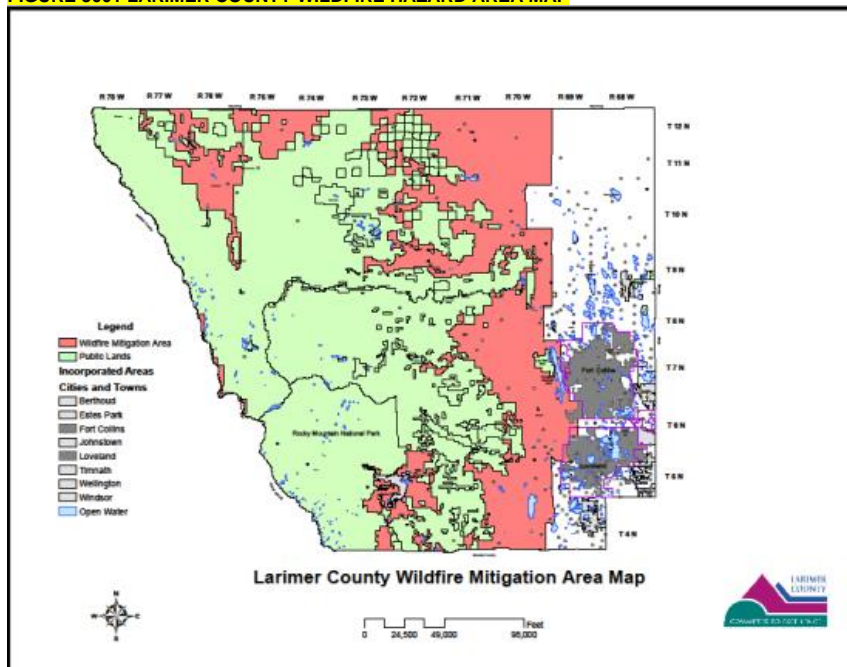
3601 General Purpose. The purpose of this chapter is to establish minimum standards for design and construction of new buildings or portions thereof for the protection of life and property from wildfire hazards.

3601.1 Scope. Within the *wildfire hazard area* as defined herein and shown in Figure 3601, all new building construction including additions shall comply with the provisions of this chapter.

EXCEPTIONS:

1. Sheds, greenhouses, and similar detached accessory structures not exceeding 600 sq. ft. in area.
2. Loafing sheds and similar unenclosed agricultural structures of any size

FIGURE 3601 LARIMER COUNTY WILDFIRE HAZARD AREA MAP



3601.2 Alternate Materials and Methods of Compliance. The provisions of this chapter are not intended to prevent the use of any material or method of compliance not specifically prescribed by this chapter, provided any alternate has been *approved* and its use authorized by the building official in accordance with Section 104.11.

3602 Definitions. For the purpose of this chapter, certain terms are defined as follows:

COMBUSTIBLE - a material that fails to meet the acceptance criteria of Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C (ASTM E136).

COMBUSTIBLE CONSTRUCTION - a type of construction that does not meet the requirement for noncombustible construction.

DEFENSIBLE SPACE - a natural or man-made area, where woody vegetation capable of allowing a fire to spread unchecked has been treated or modified to slow the spread and reduce the intensity of an advancing wildfire, and to create an area for fire suppression operations to occur.

FIRE-RESISTIVE CONSTRUCTION - construction designed to resist the spread of fire.

FIRE-RESISTIVE RATING - the time that the material or construction will withstand the standard fire exposure as determined by a fire test made in conformity with the standard methods of fire tests of buildings construction and materials.

FLAME-SPREAD INDEX (FSI) - a relative index describing the surface-burning characteristics of building materials. The test used to establish FSI evaluates the flame spread over the building material surface when exposed to a test fire. The rate at which flame spreads across the specimen is compared on a scale of 0 for inorganic reinforced cement board, to 100 for red oak." The following table identifies the flame-spread index and Flame Spread Classification:

Flame Spread Classification	Flame Spread Index
Class A	0 to 25
Class B	26 to 75
Class C	76 to 200

FUEL - combustible material.

NONCOMBUSTIBLE – a material that meets the acceptance criteria of Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C (ASTM E136).

NONCOMBUSTIBLE CONSTRUCTION - a type of construction in which a degree of fire safety is attained by the use of noncombustible materials for structural members and other building, assemblies.

ONE-HOUR FIRE-RESISTIVE CONSTRUCTION – construction that will “withstand the standard fire exposure” for one hour “as determined by a fire test made in conformity with the standard methods of fire tests of building construction and materials”.

WILDFIRE HAZARD - the relative threat that a wildland fire may cause the destruction of life and improved property.

WILDFIRE HAZARD AREA - The area west of a line starting at the intersection of the Wyoming border line and range 69 west, then South nine miles to S.W. corner of section 31, Township 11, Range 69, then West three miles to N.W. corner of Section 3, Township 10, Range 70, then South five miles to S.W. corner of Section 27, Township 10, Range 70, then East three miles to S.W. corner of Section 30, Township 10, Range 69, then South nine miles to S.W. corner of Section 7, Township 8, Range 69, then West one mile to N.W. corner of Section 13, Township 8, Range 70, then South four miles to S.W. corner of Section 36, Township 8, Range 70, then East two miles to N.W. corner of Section 6, Township 7, Range 69, then South three miles to S.W. corner of Section 17, Township 7, Range 69, then East one mile to S.E. corner of Section 17, Township 7, Range 69, then South four miles to S.W. corner of Section 4, Township 6, Range 69, then East one mile to S.E. corner of Section 4, Township 6, range 69, then South four miles to S.W. corner of Section 27, Township 6, Range 69, then West one mile to S.W. corner of Section 28, Township 6, Range 69, then South three miles to intersection of U.S. Highway 34, then West following U.S. Highway 34 two miles to intersection with Range 69 West, then South seven and three quarter miles to S.W. corner of Section 18, Township 4, Range 69, then West one mile to S.W. corner of Section 13, Township 4, Range 70, then South three miles to where the S.W. corner of Section 36, Township 9, Range 70 meets the Boulder County Line.

WILDFIRE MITIGATION - action taken to eliminate or reduce the wildfire hazard.

3603 Fire-Resistive Construction. Fire-resistive construction on all new structures shall be one of the following types:

1. One-hour fire-resistive shell providing not less than one-hour fire-resistive construction at all exterior walls, excluding openings and decks.
2. Exterior siding materials with a flame-spread classification of Class C or better. Exterior siding shall be composed entirely of non-combustible materials for a minimum of 4 feet above finished grade.

EXCEPTION:

Non-combustible siding for the lowest 4 feet is not required if 5 feet or more of non-combustible landscaping material or natural ground cover is provided in accordance with Section 331.6.

3. Log structures using solid logs with a minimum tip diameter of 6 inches (152.4 mm) for exterior wall construction and 8 inches (203.2 mm) for roof beams, purlins and supporting columns.

3604 Defensible Space. Defensible space in compliance with current Colorado State Forest Service guidelines shall be required on all new construction in the Wildfire Hazard Area. Any landscaping materials or natural ground cover within 5 feet of the exterior walls of the building shall be non-combustible. For additions equal to or greater than 50% of the total square footage of the original structure, or changes in the occupancy or use of existing buildings that would place the building under the scope of Section 3601.1, defensible space shall be provided around the entire building.

EXCEPTION: Five feet of non-combustible landscaping material or natural ground cover is not required if the lowest 4 feet of siding is non-combustible in accordance with Section 3603.

3604.1 Evaluation. Evaluation of the defensible space will be based upon:

1. Current Colorado State Forest Service standards and guidelines, and
2. Site specific vegetation and topographical characteristics.

The building official may allow alternatives to the Colorado State Forest Service Standards and Guidelines based on specific site conditions.

3604.2 Completion. The defensible space must be approved prior to issuing a certificate of occupancy.

3605 Liquid Propane Gas. Liquid propane gas facilities installed in the Wildfire Hazard Area shall comply with current county requirements, the International Fire Code and NFPA 58, for installation of such facilities. Liquid propane gas containers and tanks shall be located within the defensible space.

3606 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 arrester. Spark arrestors shall be constructed of woven or welded wire screening of 12 USA standard gage wire (0.1046 inch) (2.66 mm) having openings not exceeding ½ inch. The net free area of the spark arrester shall not be less than four times the net free area of the outlet of the chimney.

3607 Fees. Fees shall be assessed in accordance with the adopted Larimer County wildfire assessment and inspection fee schedule.

3608 Appeals. Appeals of interpretations made by the building official relative to the application of this chapter shall be made to the Board of Appeals in accordance with Section 113.

3609 Maintenance. Defensible space areas created as required by this code or other county ordinances shall be maintained by the property owner. No re-planting or new planting of trees, shrubs or other vegetation that would violate the defensible space requirements of this section shall be permitted.

Appendices

The following appendix chapters are hereby adopted as part of the 2021 International Building Code:

Appendix C. Group U - Agricultural Buildings

Appendix E. Supplementary Accessibility Requirements

Appendix I. Patio Covers

2021 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 added to read as follows:

C103.7 Permits. All items related to permits shall be as set forth in Section 105 ("Permits") of the adopted International Building Code (IBC).

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

C104 Fees. All items relating to fees shall be as specified in Section 109 ("Fees") of the adopted IBC.

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

C105 Inspections. All items relating to fees shall be as specified in Section 110 ("Inspections") of the adopted IBC.

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

C106 Notice of Approval. All items relating to Notices of Approval shall be as specified in Section 111 ("Certificate of Occupancy") of the adopted IBC.

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

C108.1 Referenced codes and standards. The codes and standards referenced in this code shall be those listed in Chapter 6, 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 C108.1.1 and C108.1.2.

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

C109 Stop Work Order. All items relating to Stop Work Orders shall be as specified in Section 115 ("Stop Work Order") of the adopted IBC.

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

C110 Means of Appeals. All items relating to Board of Appeals shall be as specified in Section 113 ("Board of Appeals") of the adopted IBC.

The following section is hereby added to read as follows:

C111 Violations. All items relating to Violations shall be as specified in Section 114 ("Violations") of the adopted IBC.

The following section is hereby amended by adding a definition 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.

The following sections are 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°F),
- c) Indoor winter design dry-bulb (72°F),
- d) Outdoor summer design dry-bulb (91°F),
- e) Indoor summer design dry-bulb (75°F),
- f) Summer design wet-bulb (62°F),
- g) 6368 Degree Days Heating, and
- h) 479 Degree Days Cooling.

All heating and cooling equipment shall be tested to ensure such equipment is operating within the manufacturers' recommended parameters and standards according to the applicable protocols established by the building code official and in accordance with the mechanical and energy conservation codes adopted by Larimer County.

The following section is hereby amended to read as follows:

C402.1.1 Low-energy buildings and greenhouses. 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 C402.

1. Those with a peak design rate of energy usage less than 3.4 Btu/h × ft² (10.7 W/m²) or 1.0 watt per square foot (10.7 W/m²) of floor area for space conditioning purposes.
2. Those that do not contain conditioned or habitable space.

3. Greenhouses.

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

TABLE C402.1.3

OPAQUE 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/m², 1 pound per cubic foot = 16 kg/m³.

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 at 32 inches or less on center vertically and 48 inches or less on center horizontally, with ungrouted cores filled with materials having a maximum thermal conductivity of 0.44 Btu-in/h-² °F.
- d. Where heated slabs are below grade, below-grade walls shall comply with the exterior insulation requirements for heated slabs.
- e. "Mass floors" shall be in accordance with Section C402.2.3.
- f. "Mass walls" shall be in accordance with Section C402.2.2.
- g. The first value is for perimeter insulation and the second value is for full, under-slab insulation. Perimeter insulation is not required to extend below the bottom of the slab. 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. 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 C402.1.4 are hereby amended to read as follows:

TABLE C402.1.4

OPAQUE THERMAL ENVELOPE ASSEMBLY MAXIMUM REQUIREMENTS, U-FACTOR METHOD^{a, b}

For SI: 1 pound per square foot = 4.88 kg/m², 1 pound per cubic foot = 16 kg/m³.

ci = Continuous Insulation, NR = No Requirement, LS = Liner System.

- 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/IESNA 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 C402.2.3.
- e. These C-, F- and U-factors are based on assemblies that are not required to contain insulation.
- f. The first value is for perimeter insulation and the second value is for full, under-slab insulation.
- g. "Mass walls" shall be in accordance with Section C402.2.2.
- h. Swinging door U-factors shall be determined in accordance with NFRC-100.
- i. Garage doors having a single row of fenestration shall have an assembly U-factor less than or equal to 0.44 in Climate Zones 0 through 6 and less than or equal to 0.36 in Climate Zones 7 and 8, provided that the fenestration area is not less than 14 percent and not more than 25 percent of the total door area.
- 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:

C402.5 Air leakage—thermal envelope. The building thermal envelope shall comply with Sections C402.5.1 through Section C402.5.11.1, or and the building thermal envelope shall be tested in accordance with Section C402.5.2 or C402.5.3. Where compliance is based on such testing, the building shall also comply with Sections C402.5.7, C402.5.8 and C402.5.9.

Exception: 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:

C402.5.1.5 Building envelope performance verification. The installation of the continuous air barrier shall be verified by the code official, a registered design professional or and an approved air leakage 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 C402.5.1.
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 Sections C402.5.1.3 and C402.5.1.4.
3. A final commissioning air barrier and air sealing inspection report shall be provided for inspections completed by the registered design professional or approved air leakage testing agency. The commissioning 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 to read as follows:

C402.5.2 Dwelling and sleeping unit enclosure testing. The building thermal envelope shall be tested in accordance with ASTM E779, ANSI/RESNET/ICC 380, ASTM E1827 or an equivalent method approved by the code official the City of Fort Collins Building Code Protocol for New Multifamily Building Air Tightness Testing. The measured air leakage shall not exceed 0.30 cfm/ft² (1.5 L/s m²) of the testing unit enclosure area at a pressure differential of 0.2 inch water gauge (50 Pa). Where multiple dwelling units or sleeping units or other occupiable conditioned spaces are contained within one building thermal envelope, each unit shall be considered an individual testing unit, and the building air leakage shall be the weighted average of all testing unit results, weighted by each testing unit's enclosure area. Units shall be tested separately with an unguarded blower door test as follows:

1. Where buildings have fewer than eight testing units, each testing unit shall be tested.
2. For buildings with eight or more testing units, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top 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 two units shall be tested, including a mixture of testing unit types and locations. If the measured air leakage exceeds 0.30 cfm/ft² (1.5 L/s m²), the testing agency shall perform a diagnostic evaluation using smoke tracer or infrared imaging and visual inspection of the air barrier to discover leaks and list repairs to reduce air leakage. Repairs shall be done based on these diagnostics, retesting for reduced air leakage shall be performed and a report showing all test results and repairs performed shall be submitted to the building official.

The following section is hereby amended to read as follows:

C402.5.3 Building thermal envelope testing. The building thermal envelope shall be tested in accordance with ASTM E779, ANSI/RESNET/ICC 380, ASTM E3158 or ASTM E1827 or an equivalent method approved by the code official the most current version of the City of Fort Collins Building Air Leakage Test Protocol for commercial buildings. The measured air leakage shall not exceed 0.40 cfm/ft² (2.0 L/s x m²) of the building thermal envelope area at a pressure differential of 0.3 inch water gauge (75 Pa). Alternatively, portions of the building shall be tested and the measured air leakages shall be area weighted by the surface areas of the building envelope in each portion. The weighted average test results shall not exceed the whole building leakage limit. In the alternative approach, the following portions of the building shall be tested:

1. The entire envelope area of all stories that have any spaces directly under a roof.
2. The entire envelope area of all stories that have a building entrance, exposed floor, or loading dock, or are below grade.
3. Representative above-grade sections of the building totaling at least 25 percent of the wall area enclosing the remaining conditioned space.

Exception: Where the measured air leakage rate exceeds 0.40 cfm/ft² (2.0 L/s x m²) but does not exceed 0.60 cfm/ft² (3.0 L/s x m²), a diagnostic evaluation using smoke tracer or infrared imaging shall be conducted by the approved air leakage testing agency while the building is pressurized along with a visual inspection of the air barrier. The testing agency shall list repairs needed to reduce leakage. Any leaks noted shall be sealed where such sealing can be made without destruction of existing building components. Repairs shall be done based on these diagnostics, retesting for reduced air leakage shall be performed and a report showing all test results and repairs performed shall be submitted to the building official. An additional report identifying the corrective actions taken to seal leaks shall be submitted to the code official and the building owner, and shall be deemed to comply with the requirements of this section.

The following section is hereby amended by adding Exceptions #3 & 4 to read as follows:

C408.2 Mechanical systems and service water-heating systems commissioning and completion requirements. Prior to the final mechanical and plumbing inspections, the registered design professional or approved agency shall provide evidence of mechanical systems commissioning and completion in accordance with the provisions of this section.

Construction document notes shall clearly indicate provisions for commissioning and completion requirements in accordance with this section and are permitted to refer to specifications for further requirements. Copies of all

documentation shall be given to the owner or owner's authorized agent and made available to the code official upon request in accordance with Sections C408.2.4 and C408.2.5.

Exceptions: The following systems are exempt:

1. Mechanical systems and service water-heating systems in buildings where the total mechanical equipment capacity is less than 480,000 Btu/h (140.7 kW) cooling capacity and 600,000 Btu/h (175.8 kW) combined service water-heating and space-heating capacity.
2. Systems included in Section C403.5 that serve individual dwelling units and sleeping units.
3. Systems in new buildings or additions not exceeding 10,000 sq. ft. gross floor area.
4. Alterations to existing buildings.

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 C105.2.6 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 from the building owner or owner's authorized agent.

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 owner or owner's authorized agent within 90 days of the date of receipt of 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.~~

The following section is hereby amended to read as follows:

C503.1 General. Alterations to any building or structure shall comply with the requirements of Section C503. Alterations shall be such that the existing building or structure is not less conforming to the provisions of this code than the existing building or structure was prior to the alteration. Alterations to an existing building, building system or portion thereof shall conform to the provisions of this code as those provisions relate to new construction without requiring the unaltered portions of the existing building or building system to comply with this code. Alterations shall not create an unsafe or hazardous condition or overload existing building systems.

Exception: The following alterations need not comply with the requirements for new construction, provided that the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Surface-applied window film installed on existing single-pane fenestration assemblies reducing solar heat gain, provided that the code does not require the glazing or fenestration to be replaced.
3. Existing ceiling, wall or floor cavities exposed during construction, provided that these cavities are filled with insulation. If the cavities are not filled, they shall be filled with insulation to the maximum extent practical without requiring reconstruction or installation of exterior insulation to meet the requirements of Tables C402.1.3 or C402.1.4.
4. Construction where the existing roof, wall or floor cavity is not exposed.
5. Roof recover.
6. Air barriers shall not be required for roof recover and roof replacement where the alterations or renovations to the building do not include alterations, renovations or repairs to the remainder of the building envelope.

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 by adding exceptions to read as follows:

R101.2 Scope. This code applies to residential buildings, building sites and associated systems and equipment.

Exceptions: The following buildings and portions thereof are exempted from the provisions of this chapter:

1. Detached accessory utility or agricultural buildings which are neither heated nor cooled by fuel or electrical energy.
2. Detached accessory utility or agricultural buildings heated or cooled in their interior for short periods of time and switched with a timer of two hours or less.
3. Detached accessory utility or agricultural buildings not heated above 50° F.
4. Detached accessory utility or agricultural buildings, and thermally isolated attached accessory utility and agricultural areas, so long as they meet or exceed the following criteria:
 - a) They do not contain habitable space.
 - b) Any heating or cooling equipment installed therein is sized assuming a maximum Indoor Winter Design Dry-bulb Temperature of 60°F and a minimum Indoor Summer Design Dry-bulb Temperature of 80°F.
 - c) Thermal envelope walls are insulated to a minimum of R-15.
 - d) The roof/ceiling is insulated to a minimum of R-30.
 - e) Windows and glazing in doors have a maximum U-factor of 0.40 and in total do not exceed 10% of the floor area.
 - f) Doors with minimum R-3 value are sealed to prevent infiltration to the extent practical as determined by the building official

The following section is hereby amended to read as follows:

R101.5.1 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 2018 or 2021 International Energy Conservation Code requirements shall be deemed to satisfy the requirements of this code.

The following section is hereby added to read as follows:

R103.7 Permits. Procedures related to permits shall be as set forth in Section 105 ("Permits") of the adopted International Residential Code (IRC).

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

R104 Fees. All items relating to fees shall be as specified in Section 108 ("Fees") of the adopted IRC.

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

R105 Inspections. All items relating to fees shall be as specified in Section 109 ("Inspections") of the adopted IRC.

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

R106 Notice of Approval. All items relating to Notices of Approval shall be as specified in Section 110 ("Certificate of Occupancy") of the adopted IRC.

The following section is hereby amended to read as follows:

R108.1 Referenced codes and standards. The codes and standards referenced in this code shall be those indicated in Chapter 6, 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 R108.1.1 and R108.1.2.

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

R109 Stop Work Order. All items relating to Stop Work Orders shall be as specified in Section 114 ("Stop Work Order") of the adopted IRC.

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

R110 Board of Appeals. All items relating to Board of Appeals shall be as specified in Section 112 ("Board of Appeals") of the adopted IRC.

The following section is hereby added to read as follows:

R111 Violations. All items relating to Violations shall be as specified in Section 113 ("Violations") of the adopted IRC.

The following section is hereby amended by adding a definition 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.

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°F).
- c) Indoor winter design dry-bulb (72°F).
- d) Outdoor summer design dry-bulb (91°F).
- e) Indoor summer design dry-bulb (75°F).
- f) Summer design wet-bulb (62°F).
- g) 6368 Degree Days Heating, and
- h) 479 Degree Days Cooling.

All heating and cooling equipment shall be tested to ensure such equipment is operating within the manufacturers' recommended parameters and standards according to the applicable protocols established by the building code official and in accordance with the mechanical and energy conservation codes adopted by Larimer County.

The following section is hereby amended to read as follows:

R402.1 General. The building thermal envelope shall comply with the requirements of Sections R402.1.1 through R402.1.5.

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 x ft2(10.7 W/m²) or 1.0 watt/ft2of floor area for space-conditioning purposes.
- 1.2. Those that do not contain conditioned or habitable space.

2. Log homes designed in accordance with ICC 400.

3 Greenhouses.

The following section is hereby amended to read as follows:

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

CLIMATE ZONE	FENESTRATION U-FACTOR ^a	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC ^{d-e}	CEILING U-FACTOR	WOOD FRAME WALL U-FACTOR ^f	MASS WALL U-FACTOR ^b	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR
5	0.30 .32	0.55	NR .40	0.024	0.045	0.082	0.033	0.050	0.055

- a. Nonfenestration U-factors shall be obtained from measurement, calculation or an approved source.
- b. Mass walls shall be in accordance with Section R402.2.5. Where more than half the insulation is on the interior, the mass wall U-factors shall not exceed 0.17 in Climate Zones 0 and 1, 0.14 in Climate Zone 2, 0.12 in Climate Zone 3, 0.087 in Climate Zone 4 except Marine, 0.065 in Climate Zone 5 and Marine 4, and 0.057 in Climate Zones 6 through 8.
- c. In warm humid locations as defined by Figure R301.1 and Table R301.1, the basement wall U-factor shall not exceed 0.360. 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. The SHGC column applies to all glazed fenestration.
Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30.
- e. There are no SHGC requirements in the Marine Zone.
- f. A maximum U factor of 0.32 shall apply in Marine Climate Zone 4 and Climate Zones 5 through 8 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 of the International Residential Code.

The following section is hereby amended to read as follows:

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

Fenestration U-Factor ^{b+i}	Skylight ^b U-Factor	Glazed Fenestration SHGC ^{b, e}	Ceiling R-Value	Wood Frame Wall R-Value ^g	Mass Wall R-Value ^h	Floor R-Value	Basement ^{c, f, g} Wall R-Value	Slab ^d R-Value & Depth	Crawl Space ^{c, f, g} Wall R-Value
.32	.55	.40	R-60	30 or 24+3 or 20+5 or 13+10 or 0+15	13/17	30	19 or 13+5 or 0+15	10ci, 4-ft., 30 in. ^e	19 or 13+5 or 0+15

For SI: 1 foot = 304.8 mm. 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. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30.

c. "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.

d. R-5 insulation shall be provided under the full slab area of a heated slab in addition to the required slab-edge insulation R-value for slabs, as indicated in the table. The slab edge insulation for heated slabs shall not be required to extend below the slab.

e. There are no SHGC requirements in the Marine Zone. 30" or top of footings or bottom of monolithic slab, whichever is greatest.

f. Basement wall insulation shall not be required in Warm Humid locations as defined by Figure N1101.7 and Table N1101.7. Class 1 vapor retarders shall not be installed on the interior of framed walls where exterior ci value is less than R-7.5

g. The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, "13 + 5" means R-13 cavity insulation plus R-5 continuous insulation.

h. Mass walls shall be in accordance with Section R402.2.5. The second R-value applies where more than half of the insulation is on the interior of the mass wall.

i. A maximum U-factor of 0.32 shall apply in Climate Zones 3 through 8 to vertical fenestration products installed in buildings located either:

1. Above 4,000 feet in elevation, or
2. In windborne debris regions where protection of openings is required by IRC Section R301.2.1.2.

The following section is hereby amended to read as follows:

R402.2.4 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 doors **attic entries** providing access from conditioned spaces to unconditioned spaces that comply with the fenestration requirements of Table R402.1.3 based on the applicable climate zone specified in Chapter 3 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 R316.5.3.

2. Horizontal pull-down, stair-type access hatches in ceiling assemblies that provide access from conditioned to unconditioned spaces in Climate Zones 0 through 4 shall not be required to comply with the insulation level of the surrounding surfaces provided the hatch meets all of the following:

2.1. The average U-factor of the hatch shall be less than or equal to U-0.10 or have an average insulation R-value of R-10 or greater.

2.2. Not less than 75 percent of the panel area shall have an insulation R-value of R-13 or greater.

2.3. The net area of the framed opening shall be less than or equal to 13.5 square feet (1.25 m²).

2.4. The perimeter of the hatch edge shall be weatherstripped.

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:

R402.2.10.1 Crawl space wall insulation installations. Where crawl space wall insulation is installed, it shall be permanently fastened to the interior or exterior wall and shall extend downward from the floor to the finished grade elevation and then vertically or horizontally for not less than an additional 24 inches (610 mm) top of the foundation wall to the footing. Exposed earth in unvented crawl space foundations shall be covered with a continuous Class 1 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:

R402.2.12 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 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-19 in Climate Zones 0 through 4 and R-24 in Climate Zones 5 through 8.
2. The minimum wall insulation R-value shall be R-13 in all climate zones. Walls separating a sunroom or heated garage with thermal isolation from conditioned space shall comply with the building thermal envelope requirements of this code.
3. Slab-on-grade insulation shall not be required.

The following section is hereby added to read as follows:

R402.2.13 Rim insulation requirements. All rims and adjoining plates shall require complete air sealing and full encapsulation of insulation to a minimum R-Value of R-15 for spray foam or foam board, R-19 for fiberglass or a hybrid of foam board and fiberglass. Plates and rims which are part of the thermal envelope shall be insulated and shall have an air barrier on the conditioned side of the assembly.

The following section is hereby amended to read as follows:

R402.4.1.4 Installation. Building envelope performance verification. The components of the building thermal envelope as indicated in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria indicated in Table R402.4.1.1, as applicable to the method of construction. ~~Where required by the code official, an approved third party shall inspect all components and verify compliance. The installation of the continuous air barrier shall be verified by the code official, a registered design professional or and an approved air leakage 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 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 R402.4.1.1.
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:

R402.4.1.2 Testing. The building or dwelling unit shall be tested for air leakage. The maximum air leakage rate for any building or dwelling unit under any compliance path shall not exceed 5.0 air changes per hour or 0.28 cubic feet per minute (CFM) per square foot [0.0079 m³/(s × m²)] of dwelling unit enclosure area. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals). ~~Where required by the code official, 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.~~

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 R402.4.1.1, applicable to the method of construction, are field verified. ~~Where required by the code official, 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 R402.2.12 and R402.3.5, as applicable.~~
2. Cabins are not required to be tested for air leakage.
3. Existing building additions, alterations or change of use to residential are not required to be tested for air leakage.

[The remainder of the section is unchanged.]

The following section is hereby amended to read as follows:

R402.4.1.3 Leakage rate. Where complying with Section R401.2.1, the building or dwelling unit shall have an air leakage rate not exceeding 5.0 air changes per hour in Climate Zones 0, 1 and 2, and 3.0 air changes per hour in Climate Zones 3 through 8, when tested in accordance with Section R402.4.1.2.

The following section is hereby amended to read as follows:

R402.4.4 Rooms containing fuel-burning appliances. In Climate Zones 3 through 8, new construction, where open combustion air ducts provide combustion air to open combustion fuel-burning appliances are installed, 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 thermal envelope. Such rooms shall be sealed and insulated in accordance with the 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 R402.4.2 and IRC Section R1006.

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 amended to read as follows:

R503.1.1 Building envelope. Building envelope assemblies that are part of the alteration shall comply with Section R402.1.2 or R402.1.4, Sections R402.2.1 through R402.2.12, R402.3.1, R402.3.2, R402.4.3 and R402.4.5.

Exception: The following alterations shall not be required to comply with the requirements for new construction provided that the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation. If the cavities are not filled, they shall be filled with insulation to the maximum extent practically possible in the judgment of the building official, without requiring additional framing or installation of exterior insulation.
3. Construction where the existing roof, wall or floor cavity is not exposed.
4. Roof recover.
5. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.
6. Surface-applied window film installed on existing single-pane fenestration assemblies to reduce solar heat gain provided that the code does not require the glazing or fenestration assembly to be replaced.

2021 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*, 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:

102.4 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 in its entirety as follows:

SECTION 103 CODE COMPLIANCE AGENCY. All items related to Code Compliance Agency shall be as set forth in Section 103 ("Code Compliance Agency") of the adopted International Building Code (IBC).

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

SECTION 104 DUTIES AND POWERS OF CODE OFFICIAL. All items related to Duties and Powers of Code Official shall be as set forth in Section 104 ("Duties and Powers of Code Official") of the adopted IBC.

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

SECTION 105 PERMITS. All items related to Permits shall be as set forth in Section 105 ("Permits") of the adopted IBC.

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

SECTION 106 CONSTRUCTION DOCUMENTS. All items related to Construction Documents shall be as set forth in Section 107 ("Construction Documents") of the adopted IBC.

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

SECTION 107 TEMPORARY STRUCTURES AND USES. All items related to Temporary Structures And Uses shall be as set forth in Section 108 ("Temporary Structures And Uses") of the adopted IBC.

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

SECTION 108 FEES. All items related to Fees shall be as set forth in Section 109 ("Fees") of the adopted IBC.

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

SECTION 109 INSPECTIONS. All items related to Inspections shall be as set forth in Section 110 ("Inspections") of the adopted IBC.

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

SECTION 110 CERTIFICATE OF OCCUPANCY. All items related to Certificate of Occupancy shall be as set forth in Section 111 ("Certificate of Occupancy") of the adopted IBC.

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

SECTION 111 SERVICE UTILITIES. All items related to Service Utilities shall be as set forth in Section 112 ("Service Utilities") of the adopted IBC.

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

SECTION 112 MEANS OF APPEAL. All items related to Means of Appeal shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 113 VIOLATIONS. All items related to Violations shall be as set forth in Section 114 ("Violations") of the adopted IBC.

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

SECTION 114 STOP WORK ORDER. All items related to Stop Work Orders shall be as set forth in Section 115 ("Stop Work Order") of the adopted IBC.

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

104.10.1 Flood Hazard areas. For existing buildings located in flood hazard areas as established by International Building Code Section 1612.3, for which repairs, alterations and or additions constitute substantial improvement, the code official County Engineer shall not grant modifications to provisions related to flood resistance unless a determination is made that without the granting of a variance to such provisions by the Floodplain Review Board.

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

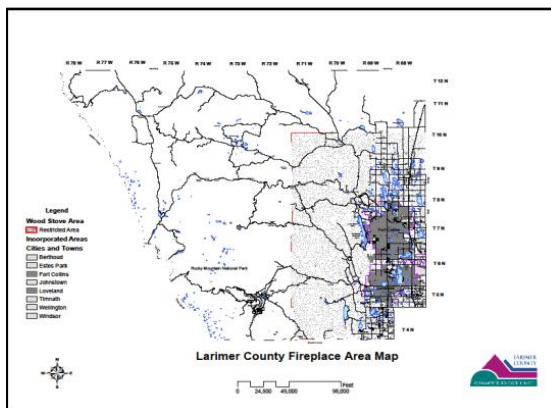
SECTION 202 GENERAL DEFINITIONS

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

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.

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

WILDFIRE HAZARD AREA - The area west of a line starting at the intersection of the Wyoming border line and range 69 west, then South nine miles to S.W. corner of section 31, Township 11, Range 69, then West three miles to N.W. corner of Section 3, Township 10, Range 70, then South five miles to S.W. corner of Section 27, Township 10, Range 70, then East three miles to S.W. corner of Section 30, Township 10, Range 69, then South nine miles to S.W. corner of Section 7, Township 8, Range 69, then West one mile to N.W. corner of Section 13, Township 8, Range 70, then South four miles to S.W. corner of Section 36, Township 8, Range 70, then East two miles to N.W. corner of Section 6, Township 7, Range 69, then South three miles to S.W. corner of Section 17, Township 7, Range 69, then East one mile to S.E. corner of Section 17, Township 7, Range 69, then South four miles to S.W. corner of Section 4, Township 6, Range 69, then East one mile to S.E. corner of Section 4, Township 6, range 69, then South four miles to S.W. corner of Section 27, Township 6, Range 69, then West one mile to S.W. corner of Section 28, Township 6, Range 69, then South three miles to intersection of U.S. Highway 34, then West following U.S. Highway 34 two miles to intersection with Range 69 West, then South seven and three quarter miles to S.W. corner of Section 18, Township 4, Range 69, then West one mile to S.W. corner of Section 13, Township 4, Range 70, then South three miles to where the S.W. corner of Section 36, Township 9, Range 70 meets the Boulder County Line.



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 one of the methods listed in Section 301.3.1, 301.3.2 or 301.3.3 as selected by the applicant. Sections 301.3.1 through 301.3.3 shall not be applied in combination with each other.

The following section is hereby deleted in its entirety:
301.3.1 Prescriptive compliance method.

The following section is hereby deleted in its entirety:
301.3.3 Performance compliance method.

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 and I-1 occupancy, the existing building shall be provided with smoke alarms in accordance with the International Fire Code or Section R314 of the International Residential Code.

Exception: Work classified as Level 1 Alterations in accordance with Chapter 7, other than installation, alteration, or repairs 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 Group I-1, I-2, I-4 and R occupancies and classrooms of Group E occupancies, the existing building shall be provided with carbon monoxide detection in accordance with the International Fire Code or Section R315 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. Installation, alteration or repairs of plumbing or mechanical systems, other than fuel-burning appliances.
3. Work classified as Level 1 Alterations in accordance with Chapter 7, other than installation, alteration, or repairs of plumbing or mechanical systems.

The following section is hereby deleted in its entirety:
CHAPTER 5 PRESCRIPTIVE COMPLIANCE METHOD

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 4 5/8 square feet (0.38 m²) 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

The following section is hereby added to read as follows (existing section 1402.7 is renumbered as 1402.10):
1402.7 Wildfire hazard area. If relocated or moved into a wildfire hazard area, structures shall comply with Chapter 36 of the International Building Code, or Section R331 of the International Residential Code, as applicable.

The following section is hereby added to read as follows:

1402.8 Fireplace restricted area. If relocated or moved into a Fireplace 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:

1402.9 Moved manufactured or mobile homes. Where manufactured or mobile homes are to be located at or above 6,000 feet elevation, or in areas where ultimate design wind speeds equal or exceed 140 mph, 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 section is hereby amended to read as follows:

1402.710 Required inspection and repairs. The code official shall be authorized to inspect, or to require approved professionals to inspect at the expense of the owner, the various structural parts of a relocated building to verify that structural components and connections have not sustained structural damage. Any repairs required by the code official as a result of such inspection shall be made prior to the final approval.

2021 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 101.2.1 through 101.2.5.

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, 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 in its entirety as follows:

SECTION 103 CODE COMPLIANCE AGENCY. All items related to Code Compliance Agency shall be as set forth in Section 103 ("Code Compliance Agency") of the adopted International Building Code (IBC).

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

SECTION 104 DUTIES AND POWERS OF CODE OFFICIAL. All items related to Duties and Powers of Code Official shall be as set forth in Section 104 ("Duties and Powers of Code Official") of the adopted IBC.

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

SECTION 105 APPROVAL. All items related to Approval shall be as set forth in Sections 104.10 through 104.11.2 ("Modifications" through "Tests") of the adopted IBC.

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

SECTION 106 PERMITS. All items related to Permits shall be as set forth in Section 105 ("Permits") of the adopted IBC.

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

SECTION 107 CONSTRUCTION DOCUMENTS. All items related to Construction Documents shall be as set forth in Section 107 ("Construction Documents") of the adopted IBC.

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

SECTION 109 FEES. All items related to Fees shall be as set forth in Section 109 ("Fees") of the adopted IBC.

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

SECTION 110 SERVICE UTILITIES. All items related to Service Utilities shall be as set forth in Section 112 ("Service Utilities") of the adopted IBC.

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

SECTION 111 TEMPORARY STRUCTURES AND USES. All items related to Temporary Structures and Uses shall be as set forth in Section 108 ("Temporary Structures and Uses") of the adopted IBC.

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

SECTION 112 INSPECTIONS AND TESTING. All items related to Inspections and Testing shall be as set forth in Section 110 ("Inspections") of the adopted IBC.

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

SECTION 113 MEANS OF APPEAL. All items related to Means of Appeal shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 114 BOARD OF APPEALS. All items related to Board of Appeals shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 115 VIOLATIONS. All items related to Violations shall be as set forth in Sections 114 ("Violations"), 112.3 ("Authority to disconnect utility services") and 116 ("Unsafe Structures and Equipment") of the adopted IBC.

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

SECTION 116 STOP WORK ORDER. All items related to Stop Work Orders shall be as set forth in Section 115 ("Stop Work Order") of the adopted IBC.

The following section is hereby amended by adding a definition 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 Regulations

The following section is hereby amended to read as follow:

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. A single wall-mounted unvented room heater is installed in a bathroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 6,000 Btu/h (1.76 kW). The bathroom shall meet the required volume criteria of Section 304.5.
4. A single wall-mounted unvented room heater is installed in a bedroom and such unvented room heater is equipped as specified in Section 621.6 and has an input rating not greater than 10,000 Btu/h (2.93 kW). The bedroom shall meet the required volume criteria of Section 304.5.
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.
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 m²) that communicates with a space outside of a sleeping room, bathroom, toilet room or storage closet.

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 ~~42~~ **18** inches (~~305~~ **457** mm) below 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 ~~8~~ **18** inches (~~203~~ **457** mm) below finished grade, ~~provided that such installation is approved and is installed in locations not susceptible to physical damage.~~

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 ~~no less than 1 1/4 times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.~~ **10 psi for non-welded pipe.**

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 have an independent vent to the outside of the building. **The vent shall terminate at least 3 feet from any openings into the building.** ~~The vent shall be designed to prevent the entry of insects, water or foreign objects.~~

Commented [EBF1]:

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. ~~Electric B~~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. ~~Room heaters listed for unvented use.~~
9. ~~8.~~ Direct-fired makeup air heaters.
10. ~~Other appliances listed for unvented use and not provided with flue collars.~~
14. ~~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 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 watts per 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:

503.1 General. The venting of appliances shall be in accordance with Sections 503.2 through 503.16. **Vents shall terminate 12" 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. ~~Where the manufacturer's instructions do not specify a termination location, the exhaust duct shall terminate 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 ~~that protrude more than 1/8 inch (3.2 mm) into the inside of the duct.~~ 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 ~~614.9.4.3~~**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:

~~**614.9.4.3**~~ **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. In new construction, kitchens with gas cooking appliances shall be supplied with an exhaust system vented to the outside in accordance with Chapter 5. 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 unvented 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.~~ ~~Unvented infrared heaters are~~ shall not be installed.

2021 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 in its entirety as follows:

SECTION 103 CODE COMPLIANCE AGENCY. All items related to Code Compliance Agency shall be as set forth in Section 103 ("Code Compliance Agency") of the adopted International Building Code (IBC).

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

SECTION 104 DUTIES AND POWERS OF CODE OFFICIAL. All items related to Duties and Powers of Code Official shall be as set forth in Section 104 ("Duties and Powers of Code Official") of the adopted IBC.

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

SECTION 105 APPROVAL. All items related to Approval shall be as set forth in Sections 104.10 through 104.11.2 ("Modifications" through "Tests") of the adopted IBC.

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

SECTION 106 PERMITS. All items related to Permits shall be as set forth in Section 105 ("Permits") of the adopted IBC.

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

SECTION 107 TEMPORARY STRUCTURES AND USES. All items related to Temporary Structures and Uses shall be as set forth in Section 108 ("Temporary Structures and Uses") of the adopted IBC.

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

SECTION 108 INSPECTIONS AND TESTING. All items related to Inspections and Testing shall be as set forth in Section 110 ("Inspections") of the adopted IBC.

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

SECTION 109 FEES. All items related to Fees shall be as set forth in Section 109 ("Fees") of the adopted IBC.

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

SECTION 110 CONSTRUCTION DOCUMENTS. All items related to Construction Documents shall be as set forth in Section 107 ("Construction Documents") of the adopted IBC.

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

SECTION 112 SERVICE UTILITIES. All items related to Service Utilities shall be as set forth in Section 112 ("Service Utilities") of the adopted IBC.

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

SECTION 113 STOP WORK ORDER. All items related to Stop Work Orders shall be as set forth in Section 115 ("Stop Work Order") of the adopted IBC.

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

SECTION 114 MEANS OF APPEAL. All items related to Means of Appeal shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 115 VIOLATIONS. All items related to Violations shall be as set forth in Sections 114 ("Violations"), 112.3 ("Authority to disconnect utility services") and 116 ("Unsafe Structures and Equipment") of the adopted IBC.

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. Where the manufacturer's instructions do not specify a termination location, the exhaust duct shall terminate **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 504.9.4.3~~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:

~~504.9.4.3~~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 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: **[Items 1 through 8 and the Exceptions are unchanged.]**

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

602.3 Stud cavity and joist space plenums. Stud wall cavities and the spaces between solid floor joists ~~to be~~ **shall not be** utilized as air plenums. ~~shall comply with the following conditions:~~

- ~~1. Such cavities or spaces shall not be utilized as a plenum for supply air.~~
- ~~2. Such cavities or spaces shall not be part of a required fire-resistance-rated assembly.~~
- ~~3. Stud wall cavities shall not convey air from more than one floor level.~~
- ~~4. Stud wall cavities and joist space plenums shall comply with the floor penetration protection requirements of the International Building Code.~~

5. Stud wall cavities and joist space plenums shall be isolated from adjacent concealed spaces by approved fireblocking as required in the International Building Code.
6. Stud wall cavities in the outside walls of building envelope assemblies shall not be utilized as air plenums.

The following section is hereby amended by adding this conversion chart below to read as follows

Table 603.4 DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESS FOR SINGLE DWELLING UNITS^a

Thickness (Inches)	.013	.016	.018	.019	.023	.024	.027	.034
Galvanized Steel (gauge)	32	30	28	28	25	25	24	21
Aluminum (gauge)	28	26	25	24	23	22	21	19

For SI: 1 inch = 25.4 mm, 1-inch water gauge = 249 Pa.

- a. Ductwork that exceeds 20 inches by dimension or exceeds a pressure of 1-inch water gauge shall be constructed in accordance with SMACNA HVAC Duct Construction Standards—Metal and Flexible.

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" 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 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 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.

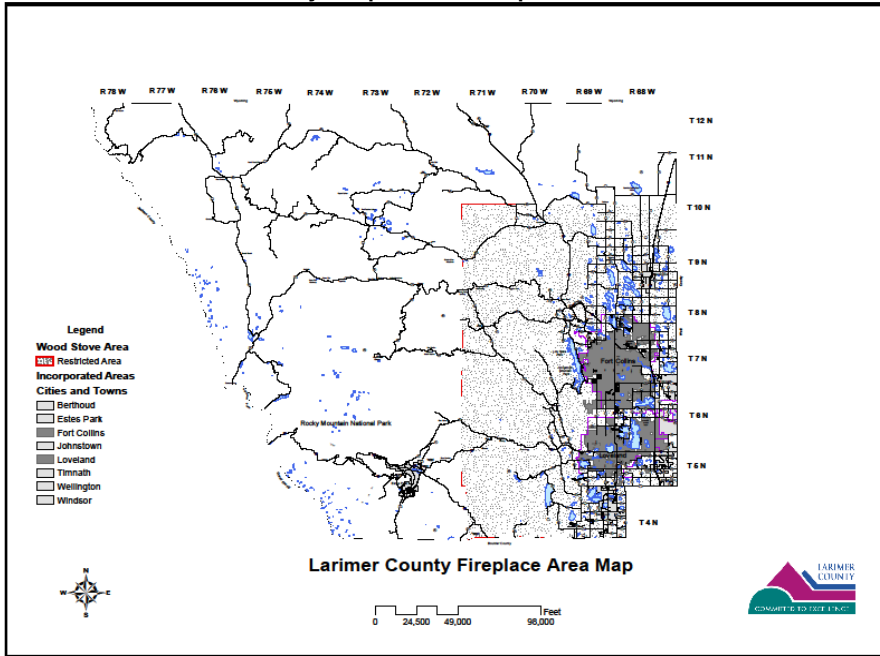
B. All fireplaces installed prior to January 1, 2002, in the Restricted Area shall be allowed to remain in use until such time as the owner voluntarily replaces it. Upon replacement, such fireplace shall be one of the types specified in Subsection (A) (i), (ii), or (iii).

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:

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



2021 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 in its entirety as follows:

SECTION 103 CODE COMPLIANCE AGENCY. All items related to Code Compliance Agency shall be as set forth in Section 103 ("Code Compliance Agency") of the adopted International Building Code (IBC).

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

SECTION 104 DUTIES AND POWERS OF CODE OFFICIAL. All items related to Duties and Powers of Code Official shall be as set forth in Section 104 ("Duties and Powers of Code Official") of the adopted IBC.

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

SECTION 105 APPROVAL. All items related to Approval shall be as set forth in Sections 104.10 through 104.11.2 ("Modifications" through "Tests") of the adopted IBC.

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

SECTION 106 PERMITS. All items related to Permits shall be as set forth in Section 105 ("Permits") of the adopted IBC.

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

SECTION 107 TEMPORARY STRUCTURES AND USES. All items related to Temporary Structures and Uses shall be as set forth in Section 108 ("Temporary Structures and Uses") of the adopted IBC.

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

SECTION 108 INSPECTIONS AND TESTING. All items related to Inspections and Testing shall be as set forth in Section 110 ("Inspections") of the adopted IBC.

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

SECTION 109 FEES. All items related to Fees shall be as set forth in Section 109 ("Fees") of the adopted IBC.

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

SECTION 110 CONSTRUCTION DOCUMENTS. All items related to Construction Documents shall be as set forth in Section 107 ("Construction Documents") of the adopted IBC.

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

SECTION 112 SERVICE UTILITIES. All items related to Service Utilities shall be as set forth in Section 112 ("Service Utilities") of the adopted IBC.

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

SECTION 113 STOP WORK ORDER. All items related to Stop Work Orders shall be as set forth in Section 115 ("Stop Work Order") of the adopted IBC.

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

SECTION 114 MEANS OF APPEAL. All items related to Means of Appeal shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 115 VIOLATIONS. All items related to Violations shall be as set forth in Sections 114 ("Violations"), 112.3 ("Authority to disconnect utility services") and 116 ("Unsafe Structures and Equipment") of the adopted IBC.

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:

305.4.1 Sewer depth. Building sewers that connect to private sewage disposal systems shall be not less than 12" below finished grade and comply with State of Colorado and Larimer County Department of Health and Environment Regulations.

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, for piping systems other than plastic, 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. Plastic piping shall not be tested using air. 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.

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 facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for *dwelling units* and *sleeping units*.
2. Separate facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of 45 **25** or fewer.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
4. ~~Separate facilities shall not be required in business occupancies in which the maximum occupant load is 25 or fewer.~~
5. Separate facilities shall not be required to be designated by sex where single-user toilets rooms are provided in accordance with Section 403.1.2.
6. Separate facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by both sexes and privacy for water closets are installed in accordance with Section 405.3.4. Urinals shall be located in an area visually separated from the remainder of the facility or each urinal that is provided shall be located in a stall.

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 45 **25** or fewer.

The following section is hereby amended to read as follows:

421.4.1 Floor and wall area. Bathtub floors, shower floors, wall areas above built-in tubs that have installed shower heads and walls in shower compartments shall be constructed of smooth, corrosion-resistant and nonabsorbent waterproof materials. Wall materials shall extend to a height of not less than 6 feet (1829 mm) above the room floor level, and not less than **79 72** inches (1778 mm) above the drain of the tub or shower. Such walls shall form a watertight joint with each other and with either the tub or shower floor.

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. ~~Where state or local requirements do not exist for private sewage disposal systems, the sanitary drainage piping and systems shall be connected to an approved private sewage disposal system that is in accordance with the International Private Sewage Disposal Code.~~

Exception: Sanitary drainage piping and systems that convey only the discharge from bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to connect to a public sewer or to a private sewage disposal system provided that the piping or systems are connected to a system in accordance with Chapter 13 or 14.

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. ~~The provisions of Chapter 13~~ **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. ~~For nonpotable rainwater systems, the provisions of CSA B805/ICC 805 shall be an alternative for regulating the materials, design, construction and installation of systems for rainwater collection, storage, treatment and distribution of nonpotable water. The use and application of nonpotable water shall comply with laws, rules and ordinances applicable in the jurisdiction.~~

Chapter 14 Subsurface Graywater Soil Absorption Systems

The following section is hereby amended to read as follows:

1401.1 Scope. ~~The provisions of this chapter~~ **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.

2021 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 *International 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 all existing premises and constitute minimum requirements and standards for premises, structures, equipment, and facilities for light, ventilation, space, heating, sanitation, 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, operators 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 Intent. This code shall be construed to secure its expressed intent, which is to ensure public health, safety and welfare insofar as they are affected by the continued occupancy and maintenance of structures and premises. Existing structures and premises that do not comply with these provisions shall be altered or repaired to provide a minimum level of health and safety 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 *International Zoning Code, 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 in its entirety as follows:

SECTION 103 CODE COMPLIANCE AGENCY. All items related to Code Compliance Agency shall be as set forth in Section 103 ("Code Compliance Agency") of the adopted International Building Code (IBC).

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

SECTION 104 FEES. All items related to Fees shall be as set forth in Section 109 ("Fees") of the adopted IBC.

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

SECTION 105 DUTIES AND POWERS OF CODE OFFICIAL. All items related to Duties and Powers of Code Official shall be as set forth in Section 104 ("Duties and Powers of Code Official") of the adopted IBC.

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

SECTION 106 APPROVAL. All items related to Approval shall be as set forth in Sections 104.10 through 104.11.2 ("Modifications" through "Tests") of the adopted IBC.

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

SECTION 107 MEANS OF APPEAL. All items related to Means of Appeal shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 108 BOARD OF APPEALS. All items related to Board of Appeals shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 110 STOP WORK ORDER. All items related to Stop Work Orders shall be as set forth in Section 115 ("Stop Work Order") of the adopted IBC.

The following section is hereby amended to read as follows:

111.1.3 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 ~~ventilation, illumination, sanitary or heating 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:

111.1.4 Unlawful structure. An unlawful *structure* is one found in whole or in part to be occupied by more persons than permitted under this code, or that was erected, altered or occupied contrary to law.

The following section is hereby amended to read as follows:

111.1.5 Dangerous structure or premises. For the purpose of this code, any ~~structure or premises~~ that has any or all of the conditions or defects described as follows shall be considered dangerous:

1. Any door, aisle, passageway, stairway, exit or other means of egress that does not conform to the approved building or fire code of the jurisdiction as related to the requirements for existing buildings.
2. The walking surface of any aisle, passageway, stairway, exit or other means of egress is so warped, worn loose, torn or otherwise unsafe as to not provide safe and adequate means of egress.
3. Any portion of a building, structure or appurtenance that has been damaged by fire, earthquake, wind, flood, deterioration, neglect, abandonment, vandalism or by any other cause to such an extent that it is likely to partially or completely collapse, or to become detached or dislodged.
4. Any portion of a building, or any member, appurtenance or ornamentation on the exterior therefor that is not of sufficient strength or stability, or is not so anchored, attached or fastened in place so as to be capable of resisting natural or artificial loads of one and one-half the original designed value.
5. The building or structure, or part of the building or structure, because of dilapidation, deterioration, decay, faulty construction, the removal or movement of some portion of the ground necessary for the support, or for any other reasons, is likely to partially or completely collapse, or some portion of the foundation or underpinning of the building or structure is likely to fail or give way.
6. The building or structure, or any portion thereof, is clearly unsafe for its use and occupancy.
7. The building or structure is *neglected*, damaged, dilapidated, unsecured or abandoned so as to become an attractive nuisance to children who might play in the building or structure to their danger, becomes a harbor for vagrants, criminals or immoral persons, or enables persons to resort to the building or structure for committing a nuisance or an unlawful act.
8. Any building or structure has been constructed or exists or is maintained in violation of any specific requirement or prohibition applicable to such building or structure provided by the approved building or fire code of the jurisdiction, or of any law or ordinance to such an extent as to present either a substantial risk of fire, building collapse or any other threat to life and safety.
9. Any building or structure, used or intended to be used for dwelling purposes, because of inadequate maintenance, dilapidation, decay, damage, faulty construction or arrangement, ~~inadequate light, ventilation, mechanical or plumbing system,~~ 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.
10. Any building or structure, because of a lack of sufficient or proper fire-resistance-rated construction, fire protection systems, electrical system, fuel connections, mechanical system, plumbing system or other cause, is determined by the *code official* to be a threat to life or health.
11. Any portion of a building remains on a site after the demolition or destruction of the building or structure or whenever any building or structure is abandoned so as to constitute such building or portion thereof as an attractive nuisance or hazard to the public.

The following section is hereby amended to read as follows:

111.2 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:

112.5 Costs of emergency repairs. Costs incurred in the performance of emergency work shall be 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 case of a locally declared emergency causing the abatement work to be completed, the Larimer County Board of County Commissioners may determine that the property owner will not be held responsible for abatement costs.

The following section is hereby amended to read as follows:

113.3 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.

Chapter 2 Definitions

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

SECTION 202 GENERAL DEFINITIONS

CODE OFFICIAL. The building official who is charged with the administration and enforcement of this code, or any duly authorized representative.

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, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001

IBC-21: International Building Code, pages 102.3, 201.3

IEBC-21: International Existing Building Code, pages 102.3, 201.3

IECC-21: International Energy Conservation Code, pages 102.3

IFC-21: International Fire Code, pages 102.3, 201.3

IFGC-21: International Fuel Gas Code, pages 102.3, 201.3

IMC-21: International Mechanical Code, pages 102.3, 201.3

IPC-21: International Plumbing Code, pages 102.3, 201.3

IRC-21: International Residential Code, pages 102.3, 201.3

2021 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:

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 in its entirety as follows:

SECTION 103 CODE COMPLIANCE AGENCY. All items related to Code Compliance Agency shall be as set forth in Section 103 ("Code Compliance Agency") of the adopted International Building Code (IBC).

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

SECTION 104 DUTIES AND POWERS OF CODE OFFICIAL. All items related to Duties and Powers of Code Official shall be as set forth in Section 104 ("Duties and Powers of Code Official") of the adopted IBC.

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

SECTION 105 PERMITS. All items related to Permits shall be as set forth in Section 105 ("Permits") of the adopted IBC.

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

SECTION 106 CONSTRUCTION DOCUMENTS. All items related to Construction Documents shall be as set forth in Section 107 ("Construction Documents") of the adopted IBC.

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

SECTION 108 FEES. All items related to Fees shall be as set forth in Section 109 ("Fees") of the adopted IBC.

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

SECTION 109 SERVICE UTILITIES. All items related to Service Utilities shall be as set forth in Section 112 ("Service Utilities") of the adopted IBC.

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

SECTION 110 INSPECTIONS. All items related to Inspections shall be as set forth in Section 110 ("Inspections") of the adopted IBC.

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

SECTION 111 MEANS OF APPEAL. All items related to Means of Appeal shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 112 BOARD OF APPEALS. All items related to Board of Appeals shall be as set forth in Section 113 ("Means of Appeal") of the adopted IBC.

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

SECTION 113 VIOLATIONS. All items related to Violations shall be as set forth in Sections 114 ("Violations"), 112.3 ("Authority to disconnect utility services") and 116 ("Unsafe Structures and Equipment") of the adopted IBC.

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

SECTION 114 STOP WORK ORDER. All items related to Stop Work Orders shall be as set forth in Section 115 ("Stop Work Order") of the adopted IBC.

Chapter 2 Definitions

The following section is hereby amending 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 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 Section 304.2.1 or 304.2.2, the Larimer County Land Use Code.

~~304.2.1 Pools and spas located in designated floodways.~~

~~304.2.2 Pools and spas located where floodways have not been designated.~~

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 Class B and Class C pools shall be in accordance with Table 403.1, International Building Code Section 1004.

2020 NATIONAL ELECTRICAL CODE

The latest edition of the National Electrical Code (NFPA 70) as adopted by the State of Colorado Electrical Board is hereby adopted by this jurisdiction and shall be known as the Electrical Code of Larimer County, hereinafter referred to as "this code." The following amendments shall constitute this code's administrative provisions as applicable to buildings and structures within the scope of the International Building Code.

101.1 Scope. This code applies to the design, construction, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of electrical systems and equipment.

101.2 Purpose. The purpose of this code is to establish minimum requirements to safeguard public health, safety and general welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance or use of electrical systems and equipment.

101.3 Maintenance. Electrical systems, equipment, materials and appurtenances, both existing and new, and parts thereof shall be maintained in proper operating condition in accordance with the original design and in a safe, hazard-free condition. Devices or safeguards that are required by this code shall be maintained in compliance with the code edition under which installed. The owner or the owner's authorized agent shall be responsible for the maintenance of the electrical systems and equipment. To determine compliance with this provision, the building official shall have the authority to require that the electrical systems and equipment be reinspected.

101.4 Additions, alterations and repairs. Additions, alterations, renovations and repairs to electrical systems and equipment shall conform to that required for new electrical systems and equipment without requiring that the existing electrical systems or equipment comply with all of the requirements of this code. Additions, alterations and repairs shall not cause existing electrical systems or equipment to become unsafe, hazardous or overloaded.

Minor additions, alterations, renovations and repairs to existing electrical systems and equipment shall meet the provisions for new construction, except where such work is performed in the same manner and arrangement as was in the existing system, is not hazardous and is approved.

101.5 Subjects not regulated by this code. Where no applicable standards or requirements are set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of nationally recognized standards as are 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 building official to determine compliance with codes or standards for those activities or installations within the building official's jurisdiction or responsibility.

101.6 Other codes. All references to other codes shall mean that code as adopted and amended by Larimer County.

102 Permits. All items related to Permits shall be as set forth in Section 105 of the International Building Code.

103 Construction Documents. All items related to Construction Documents shall be as set forth in Section 107 of the International Building Code.

104 Alternative Engineered Design. All items related to Alternative Engineered Design shall be as set forth in Section 104.11 of the International Building Code.

105 Fees. All items related to Fees shall be as set forth in Section 109 of the International Building Code.

106 Required Inspections and Testing. All items related to Required Inspections and Testing shall be as set forth in Section 110 of the International Building Code.

107 Appeals. All items related to Appeals shall be as set forth in Section 113 of the International Building Code.

108 Violations. All items related to Violations shall be as set forth in Section 114 of the International Building Code.

109 Stop Work Order. All items related to Stop Work Orders shall be as set forth in Section 115 of the International Building Code.

110 Unsafe Electrical Systems and Equipment. All items related to Unsafe Electrical Systems and Equipment shall be as set forth in Sections 116 and 112.3 of the International Building Code.