

DEPARTMENT OF LOCAL AFFAIRS

Division of Housing

**NON-RESIDENTIAL AND RESIDENTIAL FACTORY-BUILT STRUCTURES;
SELLERS OF MANUFACTURED HOMES;
MANUFACTURED HOME INSTALLATIONS; AND
HOTELS, MOTELS, AND MULTI-FAMILY DWELLINGS IN THOSE AREAS OF THE STATE
WHERE NO STANDARDS EXIST**

8 CCR 1302-14

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

Rule 1. Definitions.

In addition to the definitions provided in section 24-32-3302, C.R.S., the following definitions apply to these rules:

- 1.1 "Authorized quality assurance representative" as defined in section 24-32-3302(1), C.R.S., means a "third party agency" (defined in Rule 1.24.2 below) approved by the Division of Housing.
- 1.2 "Alternative Construction" or "AC" means additional construction and/or modification of the factory-built structure that directly relates to durability, quality, and safety and that is completed at the site using components shipped with the factory-built structure as reflected in the plans for the structure and approved by the Division of Housing.
- 1.3 "Authority Having Jurisdiction" or "AHJ" means the local building department with oversight over where the structure is to be located.
- 1.4 "Certificate of Occupancy" means a certificate issued by the Division of Housing stating at the time of issuance the structure was built in compliance with all applicable codes and construction standards adopted by the State Housing Board. It only applies to motels, hotels, and multi-family dwellings in those areas of the state where no such standards exist.
- 1.5 "Certified Inspector" means an "independent contractor" as defined pursuant to section 24-32-3302(15), C.R.S., that is authorized by the Division of Housing to perform or enforce installation inspections.
- 1.6 "Conflict of Interest" means when there is personal or private interest(s) sufficient to influence or appear to influence the proper exercise of duties and/or responsibilities.
- 1.7 "Direct On-site Supervision" as used in section 24-32-3315(1)(b)(I), C.R.S., means the registered or certified installer must be present at the installation "site" as defined by section 24-32-3302(33), C.R.S., and readily available to properly supervise installation work as defined by section 24-32-3302(16), C.R.S., that is performed by an employee not registered or certified as an installer.
- 1.8 "Firm" as used in the definition of an "independent contractor" pursuant to section 24-32-3302(15), C.R.S., and in the definition of a "quality assurance representative" pursuant to section 24-32-3302(30), C.R.S., means a "third party agency" (defined in Rule 1.24 below).

- 1.9 “HUD Home” means a manufactured home constructed in compliance with the “National Manufactured Housing Construction and Safety Standards Act of 1974”, 42 U.S.C. sec. 5401 et seq., and any standard promulgated by the Secretary of the U.S. Department of Housing and Urban Development (HUD) pursuant to that federal act.
- 1.10 “Individual” as used in the definition of an “independent contractor” pursuant to section 24-32-3302(15), C.R.S., means a professional engineer (PE) or architect authorized by the Division of Housing to perform or enforce installation inspections.
- 1.11 “Insignia” means a seal, label, or tag issued by the Division of Housing that when permanently affixed to a structure confirms compliance as one of the following:
- 1.11.1 An “insignia of approval” pursuant to sections 24-32-3311(1) and 24-32-3311(4), C.R.S., issued by the Division of Housing or an “authorized quality assurance representative” pursuant to sections 24-32-3302(1) and 24-32-3303(1)(c), C.R.S., verifying that a factory-built structure is designed and constructed in compliance with the requirements of all state or local ordinances or rules, including those for electrical and plumbing.
- 1.11.2 A “certificate of installation” as defined pursuant to section 24-32-3302(3), C.R.S., and issued by the Division of Housing or a party authorized by the Division of Housing, verifying compliance with the manufactured home installation standards established by the State Housing Board in Rule 2 of these rules.
- 1.12 “Installation Authorization” means a notice posted on the site of an installation verifying that the home owner or registered installer has made application with the Division of Housing to install a manufactured home and has received authorization to install it, or that the home will be installed by a certified installer who has automatic authorization to do so under his/her certified status.
- 1.13 “Local Jurisdiction” as used in the definition of an “independent contractor” pursuant to section 24-32-3302(15), C.R.S., means a “participating jurisdiction”.
- 1.14 “Multi-family” means a structure containing three or more dwelling units or a bed and breakfast dwelling that has six or more guest rooms.
- 1.15 “Occupancy” or “Occupied” means a factory-built structure or manufactured home designed, built, modified, and/or used with the intent for individuals to enter.
- 1.16 “Open Construction” means any building component, assembly, or system manufactured in such a manner that all concealed parts or processes of manufacture can be readily inspected at the building site without disassembly, damage, or destruction, i.e., panelized construction assembled on site. Note: Assembled rooms or spaces, panels with finishes applied to both sides and electrical wiring in conduit are **not** open construction.
- 1.17 “Participating Jurisdiction” means a “local government” as defined pursuant to section 24-32-3302(18), C.R.S., which has agreed to administer and inspect manufactured housing installations within the legal boundaries of the jurisdiction and in compliance with the manufactured home installation standards established by the State Housing Board in Rule 2 of these rules.
- 1.18 “Permanent Foundation” means the structure or home will be installed at a site in manner that makes it difficult, if not impossible, for it to be relocated at a later date once set.
- 1.19 “Plan” means a specific design for the construction of a structure submitted by the manufacturer to the Division of Housing for review and approval that typically includes a floor plan, elevation drawings, structural pages, electrical circuit layouts, recommended foundation drawings,

mechanical drawings, plumbing isometrics, cross section drawings, an energy code compliance report, heat load calculations, and the engineering calculations.

- 1.20 “Quality Control Procedures” means procedures prepared by a manufacturer for each of its manufacturing facilities and approved by the Division of Housing or “third party agency” (defined in Rule 1.23 below) describing the method that the manufacturer uses to assure structures produced by that manufacturer are in conformance with the applicable standards, codes, and approved plans.
- 1.21 “Red Tag Notice” means a physical identification posted visibly on a particular structure indicating that it is in violation of applicable state statutes, federal law, and/or these rules. Structure posted with this notice cannot be sold, offered for sale, nor have occupancy in Colorado.
- 1.22 “State Administrative Agency” or “SAA” means the Building Code and Standards Section of the Department of Local Affairs’ Division of Housing which has been approved or conditionally approved by the federal government to carry out its state plan for enforcement of its standards pursuant to Rule 2.8 of these rules.
- 1.23 “Temporary Foundation” means the structure or home will be installed at a site in manner that makes it possible for it to be relocated at a later date once set.
- 1.24 “Third Party Agency” means one of the following entities authorized by the Division of Housing:
- 1.24.1 “Firm” as used in the definition of an “independent contractor” pursuant to section 24-32-3302(15), C.R.S., to perform or enforce installation inspections, or
- 1.24.2 “State” or “firm” as used in the definition of a “quality assurance representative” pursuant to section 24-32-3302(30), C.R.S., to:
- A. Inspect a manufacturer’s registered or certified facility by conducting a “production review” pursuant to section 24-32-3302(28), C.R.S., in order to determine its ability to follow a building “plan” approved by the Division of Housing and the construction standards and codes adopted by the State Board of Housing, evaluating a manufacturer’s “quality control procedures”, and performing design evaluations for manufactured housing units;
 - B. Inspect a factory-built structure at seller lots and/or on site as part of an oversight inspection of a registered factory, random audit inspection of a certified factory, or an alternative construction inspection to ensure compliance with construction standards and codes adopted by the State Housing Board; and
 - C. Certify a manufacturer’s factory-built structure by affixing an insignia of approval issued by the Division of Housing deeming it to be designed and constructed in compliance with the requirements of all ordinances or rules, including those for electrical and plumbing, enacted or adopted by the state or by any local government.

Rule 2. Codes and Standards

Building Codes for Modular Homes; Factory-Built Nonresidential Structures; and Hotels, Motels, and Multi-family Dwellings in those areas of the State where no Standards Exist

Manufacturers are permitted to use the construction codes in effect prior to the adoption of any new code for a maximum of 180 days after the amendment in rule takes effect. The Program Manager for the

Building Codes and Standards Section is authorized to grant, in writing, one extension, for a period not more than 180 days. Pursuant to sections 24-32-3303(1), 24-32-3304(1)(a) and (b), and section 24-32-3305(2), C.R.S., the State Housing Board adopts the following nationally recognized construction codes, including any revisions, additions, deletions, and/or exceptions/exemptions identified below each one:

2.1 The International Building Code (IBC), 2018 Edition, published by the International Code Council, Inc. (ICC)

2.1.1 **Section 105.2 Work exempt from permit**

Add the following exceptions prior to “Building:”

2.1.1.1 **Equipment Enclosures:**

1. One story detached equipment storage (see definitions).
2. One story detached buildings designed to protect environmental sensitive equipment (heat, weather elements) or to protect from being damaged, not connected to a permanent source of power, and not installed on a permanent foundation.

2.1.1.2 **Building Components:**

A building component, assembly, or system constructed in the factory as open construction (see definitions).

The above exemptions from approval through the State factory-built program do not grant any exemption from local jurisdiction requirements or state electrical or plumbing requirements. The above exemptions do not grant authorization for any work to be done in a manner that is in violation of the provisions of the adopted codes.

2.1.2 **Section 901.2 Fire Protection systems**

Add the following new section:

2.1.2.1 **Section 901.2.1 Certified inspector required**

An automatic fire sprinkler system shall be installed in commercial buildings as required by the local jurisdiction where the structure will be set. Final tests required by this Section shall be approved by a certified inspector as required by a local jurisdiction. The inspector must either an employee of the fire department having jurisdiction or another qualified individual with prior approval of the Colorado Division of Fire Prevention & Control.

2.1.3 **Section 907.2.1.6 Power Source**

Revise the first paragraph to read as follows:

In new construction, required smoke and carbon monoxide alarms shall receive their primary source power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms.....for overcurrent protection. Smoke and/or carbon monoxide alarms shall not be installed on a circuit dedicated only for smoke and/or carbon monoxide alarms.

2.1.4 **Section 915.4.3 Carbon monoxide alarms – Locations**

Add the following sentence after the first sentence:

They shall be installed within 15 feet of the outside of the entrance of each separate sleeping area

2.1.5 **Section 1015.8 Window sills**

Replace the word “sills” with the word “openings” in the section title and replace the word “sill” in the first sentence with the word “bottom”.

2.1.6 **Chapter 11**

Delete in its entirety.

2.1.7 **Section 1507.1.1 Ice barriers**

Add the following sentence at the beginning:

An ice barrier is required where stated throughout Section 1507 due to a history of ice forming along eaves in Colorado.

And add the following language at the end of the first sentence:

...or not fewer than two layers of underlayment cemented together and to the roof.

2.1.8 **Section 1608.2 Ground snow loads**

Revise to read as follows:

Roof Snow Load (Pf) shall be in accordance with the local jurisdiction requirements and shall not be less than a minimum roof snow load of 30 PSF. The allowable increase of snow duration shall not be used when the snow load is above 65 PSF.

2.1.9 **Section 1609.3.1 Wind speed conversion**

Add this new section with the following language:

The 3 second gust basic wind speed shall be in accordance with the local jurisdiction requirements. For jurisdictions that have adopted a building code edition prior to the 2012, the basic wind speed of that jurisdiction shall be multiplied by 1.20 for Risk category I structures, 1.29 for Risk category II structures, and 1.38 for Risk category III and IV structures to obtain V_{ult} . The design wind speed V_{ult} shall not be less than the minimum basic wind speeds as follows (Risk category as determined by Table 1604.5):

Risk category I structures – 105 MPH

Risk category II structures – 115 MPH

Risk category III and IV structures – 120 MPH

The Exposure category shall be C, unless otherwise justified.

2.1.10 **Section 2111.1.1 Fireplaces**

Add this new section with the following language:

Every new fireplace shall have permanently installed one of the following:

1. Approved gas logs;
2. Other approved gas or alcohol specific appliances;
3. An approved fireplace insert meeting the most stringent emission standards for wood stoves established under state statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or
4. A solid fuel burning device which is exempt from and not eligible for certification under U.S. Environmental Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990.

2.2 The International Residential Code (IRC), 2018 Edition, published by the International Code Council, Inc. (ICC)

2.2.1 **Table R301.2(1) -**

Revise as follows:

Climatic or Geographic Design Criteria for IRC Dwellings (Risk Category II Structures)	Division of Housing Minimum
Roof Snow load	30 psf, non-reducible
Basic Wind Speed	115 mph (V_{ult}), Exposure C
Wind Topographic Effects	Per Local
Seismic Design Category	Minimum B
Weathering	Severe
Frost Line Depth	Per Local
Termite Damage	Slight
Winter Design Temperature	Per Local
Ice Barrier Underlayment Requirement	Yes
Flood Hazards	Per Local
Air Freezing Index	Per Local
Mean Annual Temperature	Per Local

¹⁾The roof snow load, wind design, and seismic zone shall be in accordance with the local jurisdiction requirements and shall not be less than the minimums stated. The allowable increase for snow duration shall not be used when the snow load is above 65 PSF.

²⁾See Attachment A and verify with local jurisdiction.

³⁾See the National Climatic Data Center data table “Air Freezing Index-USA Method (Base 32° Fahrenheit)” at www.ncdc.noaa.gov.

2.2.2 **Table R301.5 – Live Loads**

Add footnote (j) to Decks, Exterior balconies, Fire escapes to read as follows:

⁴⁾When the snow load is above 65 psf, the minimum uniformly distributed live loads for exterior balconies, decks and fire escapes shall be as required for roof snow loads.

2.2.3 **Table R302.1(1) – Exterior Walls**

Delete footnote (b).

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

Delete footnote (c).

2.2.5 **Section R308.4.6 Glazing adjacent to stairs and ramps**

Revise to include the following sentence as an exception:

1. Where the glazing is protected by a guard complying with Section R312 and the plane of the glass is more than 18 inches (457 mm) from the guard.

2.2.6 **Section R308.4.7 Glazing adjacent to the bottom of the stair landing**

Revise to increase to less than 60 inches (1524 mm) above the landing.

2.2.7 **Section R310.1 Emergency escape and rescue opening required**

Add a second sentence that reads as follows:

Cape Code style unfinished habitable attics that qualify as a story shall require one operable emergency and escape opening at both gable end walls.

2.2.8 **Section R310.2.2 Window sill height**

Replace the word “sill” with the word “opening” in the section title and in the first sentence.

2.2.9 **Section 311.7.12 Ships ladders**

Add the following sentence to the end of the Exception:

The device must remain fixed in position when used in these areas.

2.2.10 **Section R312.2.1 Window sill heights**

Replace the word “sill” with the word “opening” in the section title and replace the word “sill” in the first sentence with the word “bottom”.

2.2.11 **Section R313 Automatic Fire Sprinkler Systems**

Delete this section and replace it with the following:

An automatic fire sprinkler system shall be installed in one and two family dwellings and townhouses as required by the local jurisdiction where the home will be set. Final tests required by this Section shall be approved by a certified inspector. The inspector shall be an employee of the fire department having jurisdiction or another qualified individual with prior approval of the Colorado Division of Fire Prevention & Control.

2.2.12 **Section R314 Smoke and carbon monoxide alarms**

Revise to read as follows:

2.2.12.1 **Section R314.1 General**

Add the following sentence as the second sentence:

Carbon monoxide alarms shall comply with Section 314.

2.2.12.2 **Section R314.1.1 Listings**

Add the following sentence as the second sentence:

Carbon monoxide alarms shall be listed in accordance with UL 2034.

2.2.12.3 **Section R314.2 Where required**

Insert “and carbon monoxide detectors” after “alarms”.

2.2.12.4 **Section R314.2.1 New construction**

Insert “and carbon monoxide detectors” after “alarms”.

2.2.12.5 **R314.2.2 Alterations, repairs and additions**

Insert “and carbon monoxide detectors” after “alarms”.

2.2.12.6 **Section R314.3 Location**

Revise to read as follows:

Smoke alarms and/or carbon monoxide detectors shall be installed in the following locations:

1. Smoke alarms in each sleeping room.
2. Combination smoke alarms and carbon monoxide detectors outside each separate sleeping area in the immediate vicinity of the bedrooms.

3. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm or combination smoke alarm and carbon monoxide detector shall be installed within the bedroom.
4. On each additional story of the dwelling, including basements and habitable attics and not include crawl spaces and uninhabited attics, In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
5. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section R314.3.

2.2.12.7

R314.3.1 Installation near cooking appliances

Revise to read as follows:

Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section R314.3.

1. Ionization smoke alarms shall not be installed less than 20 feet (6096 mm) horizontally from a permanent installed cooking appliance.
2. Ionization smoke alarms with an alarm-silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.
3. Photoelectric smoke alarms shall not be installed less than 6 feet (1828 mm) horizontally from a permanent installed cooking appliance.

2.2.12.8

Section R314.4 Interconnection

Revise to read as follows:

When more than one smoke alarm, carbon monoxide detector, or combination smoke alarm/carbon monoxide detector is required to be installed within a individual dwelling unit in accordance with Section R314.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Interconnection of smoke alarms, carbon monoxide detectors, or combination smoke alarm/carbon monoxide detectors in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless

there is an attic, crawl space, or basement available that could provide access for interconnection without the removal of interior finishes.

2.2.12.9 **Section R314.5 Combination alarms**

Revise to read as follows:

Combination smoke and carbon monoxide alarms shall be permitted to be used in lieu of smoke alarms.

2.2.12.10 **Section R314.6 Power source**

Revise to read as follows:

Smoke alarms, and/or carbon monoxide detectors, or combination smoke alarms/carbon monoxide detectors shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be on a bedroom lighting circuit and without a disconnecting switch other than those required for overcurrent protection.

Exceptions:

1. Smoke alarms, carbon monoxide detectors, or combination smoke alarm/carbon monoxide detectors shall be permitted to be battery operated where installed in buildings without commercial power.
2. Smoke alarms, carbon monoxide detectors, or combination smoke alarm/carbon monoxide detectors installed in accordance with Section R314.2.2 shall be permitted to be battery powered.

2.2.12.11 **Section R314.7 Fire alarm system**

Revise to read as follows:

Fire alarm systems shall be permitted to be used in lieu of smoke alarms and shall comply with Section R314.7.1 through R314.7.4.

2.2.12.12 **Section R314.7.1 General**

Revise to read as follows:

Fire alarm systems shall comply with the provisions of this code and the household fire warning equipment provisions of NFPA 72. Smoke detectors shall be listed in accordance with UL 268.

2.2.12.13 **Section R314.7.2 Location**

Revise to read as follows:

Smoke detectors shall be installed in the locations specified in Section R314.3.

2.2.12.14 **Section R314.7.3 Permanent fixture**

Revise to read as follows:

Where a household fire alarm system is installed, it shall become a permanent fixture of the occupancy, owned by the homeowner.

2.2.12.15 **Section R314.7.4 Combination detectors**

Revise to read as follows:

Combination smoke and carbon monoxide detectors shall be permitted to be installed in fire alarm systems in lieu of smoke detectors, provided that they are listed in accordance with UL 268 and UL 2075.

2.2.12.16 **Section R314.8 Carbon monoxide detection systems**

Revise to read as follows:

Carbon monoxide detection systems shall be permitted to be used in lieu of carbon monoxide alarms and shall comply with Sections R314.8.1 through R314.8.4.

2.2.12.17 **Section R314.8.1 General**

Revise to read as follows:

Household carbon monoxide detection systems shall comply with NFPA 720. Carbon monoxide detectors shall be listed in accordance with UL 2075.

2.2.12.18 **Section R314.8.2 Location**

Revise to read as follows:

Carbon monoxide detection systems shall be installed in the locations specified in Section R314.3. These locations supersede the locations specified in NFPA 720.

2.2.12.19 **Section R314.8.3 Permanent fixture**

Revise to read as follows:

Where a household carbon monoxide detection system is installed, it shall become a permanent fixture of the occupancy and owned by the homeowner.

2.2.12.20 **Section R314.8.4 Combination detectors**

Relocated from Section R315.6.4 and reads as follows:

Combination carbon monoxide and smoke detectors shall be permitted to be installed in carbon monoxide detection systems in lieu of carbon monoxide detectors, provided that they are listed in accordance with UL 2075 and UL 268.

2.2.12.21 **Section R315 Carbon monoxide alarms**

Delete in its entirety.

2.2.13 **Section R802.10 Wood trusses**

Add the following new section:

Section R802.10.5 Marking

Each truss shall be legibly branded, marked, or shall have other permanent labeling of the truss drawing's designated identification number on the large face of the top chord and within two (2) feet of the peak of the truss.

2.2.14 **Section R905.1.2 Ice barriers**

Revise to read as follows:

An ice barrier is required, where stated throughout Section R905, due to a history of ice forming along eaves in Colorado. The ice barrier shall consist of a self-adhering polymer-modified bitumen sheet and shall extend from the eave's edge to a point at least 24" inside the exterior wall line of the building or of not fewer than two layers of underlayment cemented together and to the roof.

2.2.15 **Section R1004.4, G2406.2 exceptions 3 and 4, G2425.8 #7, G2445**

Delete all and replace with the following:

Unvented fuel fired room heaters and unvented fuel fired fireplaces are prohibited.

2.2.15 Add the following new sections:

Section R1001.1.1 and R1004.1.1 – Fireplaces

Every new fireplace shall have permanently installed one of the following:

1. Approved gas logs;
2. Other approved gas or alcohol specific appliances;
3. An approved fireplace insert meeting the most stringent emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or
4. A solid fuel burning device which is exempt from and not eligible for certification under U.S. Environmental Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990.

2.2.16 **Section P2503.5.1 Rough plumbing**

Delete the words "other than plastic" in the sentence for water and air testing.

2.2.17 **Chapter 11 ENERGY EFFICIENCY**

Delete in its entirety.

2.2.18 **Section M2001.1 Installation and G2452.2 Installation**

Add the following sentence:

All rooms or spaces containing boilers shall be provided with a floor drain and trap primer.

2.2.19 **Section G2417.4.1 Test pressure**

Revise to read as follows:

The test pressure to be used shall not be less than 1 ½ times the proposed maximum working pressure, but not less than 10 psig (69 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. The test pressure for valves and connections to appliances shall not exceed 0.5 psig (3kPa).

2.2.20 **Electrical Sections**

Delete Chapters 34 through 43.

2.3 The International Mechanical Code (IMC), 2018 Edition, published by the International Code Council, Inc. (ICC)

2.3.1 **Section 303.3.1 LPG appliance**

Add the following new section:

LPG appliances shall not be installed in a pit, basement, or crawl space where unburned fuel may accumulate unless an approved sensing device is installed in conjunction with an automatic shutoff valve located where the gas enters the structure only for retro-fitting of existing structures.

2.3.2 **Section 903.1 General**

Add the following additional sentence:

Every new installation of a solid fuel-burning, vented decorative appliance or room heater shall meet the most stringent emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission as of the time of installation of the appliance or room heater. (Effective January 1, 1991 – CC90-617).

2.3.3 **Section 903.3 Unvented gas log heaters**

Delete this section in its entirety.

2.4 The International Plumbing Code (IPC), 2018 Edition, published by the International Code Council, Inc. (ICC)

2.4.1 **Appendix Chapter E – Sizing of water piping systems**

2.4.1.1 **Section 312.3**

Delete the words “Plastic Piping shall not be tested by using air”.

- 2.5 The National Electric Code (NEC), published by the National Fire Protection Association, Inc. (NFPA), and the Edition as adopted by the Colorado State Electrical Board at the time of plan submittal.

A transition period of 180 days after the effective date applies. The Program Manager for the Building Codes and Standards Section is authorized to grant, in writing, one extension, for a period not more than 180 days.

Any conflicts that may arise between these amendments and a future State adopted edition of the NEC shall be resolved by applying the specific amended provisions of the 2017 edition. The following amendments are made to the NEC for use with all factory-built units:

2.5.1 **Article 545 Manufactured Buildings**

Add the following new section:

2.5.1.1 **Section 545.14 Testing**

- (A) Dielectric Strength Test. The wiring of each factory-built unit shall be subjected to a 1-minute, 900-volt AC or 1273-volt DC dielectric strength test (with all switches closed) between live parts (including neutral) and the ground. Alternatively, the test shall be permitted to be performed at 1080-volts AC or 1527-volts DC for 1 second. This test shall be performed after branch circuits are complete and after wiring devices are installed and wiring properly terminated.

Exception 1: Listed fixtures or appliances shall not be required to withstand the dielectric strength test.

Exception 2: Units wired in Electrical Metallic Tubing or Rigid Metal Conduit.

- (B) Continuity and Operational Tests and Polarity Checks. Each manufactured building shall be subjected to:
- (1) An electrical continuity test to ensure that all exposed electrically conductive parts are properly bonded;
 - (2) An electrical operational test to demonstrate that all equipment, except water heaters and electric furnaces, is connected and in working order; and
 - (3) Electrical polarity checks of permanently wired equipment and receptacle outlets to determine that connections have been properly made.

These tests shall be performed after branch circuits are complete and after wiring devices are installed and wiring properly terminated.

2.5.2 **Article 320.23(A) Cables Run Across the Top of Floor Joists/Rafters**

Add the following new sentence at the end:

Substantial guard strips or other protection shall be provided to protect wiring within three (3) feet of the marriage line where the attic is exposed and the roof is completed on-site, such as a hinged roof.

2.6 The International Fuel Gas Code (IFGC), 2018 Edition, published by the International Code Council, Inc. (ICC)

2.6.1 **Section 303.3 Prohibited locations**

Add the following:

Number 6. LPG appliances. LPG appliances shall not be installed in a pit, basement or crawl space where unburned fuel may accumulate unless an approved sensing device is installed in conjunction with an automatic shutoff valve located where the gas enters the structure only for retro-fitting of existing structures.

2.6.2 **Section 303.3 exceptions 3 and 4, 501.8 #8, Section 621**

Delete all and replace with the following:

Unvented fuel fired room heaters and unvented fuel fired fireplaces are prohibited.

2.6.3 Section 406.4.1 Test pressure

Revise to read as follows:

The test pressure to be used shall not be less than 1 ½ times the proposed maximum working pressure, but not less than 10 psig (69 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. The test pressure for valves and connections to appliances shall not exceed 0.5 psig (3kPa).

2.7 The International Energy Conservation Code (IECC), 2015 Edition, published by the International Code Council, Inc. (ICC)

2.7.1 **Section C101.5 and R101.5 Compliance**

Residential buildings shall meet the provisions of the 2015 IECC—Residential provisions.

Commercial buildings shall meet the provisions of the 2015 IECC—Commercial provisions.

Add the following exception:

Where the location the factory-built structure is to be permanently set is known and the local jurisdiction has adopted the 2012 IECC, the building may comply with the 2012 IECC. Where the location the factory-built structure is to be permanently set is known and the local jurisdiction has adopted an earlier version of the energy code which is less restrictive than the 2012 IECC, including any local jurisdiction amendments, or where no code has been adopted that regulates the design of buildings for effective energy use, the structure may comply as far as the 2009 IECC.

2.7.2 **Section C202, R202 - Definitions**

Add the following definition:

ZERO-ENERGY BUILDING. A building with zero net energy consumption and zero carbon emissions annually as certified by an approved annual energy use analysis.

2.7.3 **Section C402.1.1 Low energy buildings**

Add the following exemption:

4. **Zero-Energy Buildings.** Zero energy buildings are exempt from the provisions of the International Energy Conservation Code.

2.7.4 **Section C402.1.2**

Add the following exemption:

Equipment buildings intended to house electronic or environmental sensitive equipment power and not intended for human occupancy and not exceeding 1000 sq. ft. will be exempt from the building thermal envelope provisions of this code.

2.7.5 **Section C402.1.2.1 Semi heated buildings**

Add the following new section:

Buildings less than or equal to 200 square feet and that enclose equipment and are conditioned only for the proper operation of the equipment may show envelope compliance as a semi heated space under ANSI/ASHRAE/IES Standard 90.1.

2.7.6 **Section C404.5**

Delete this section in its entirety.

2.7.7 **Section R402.1 Low energy buildings**

Add the following exemption:

3. **Zero-Energy Buildings.** Zero energy buildings are exempt from the provisions of the International Energy Conservation Code.

2.7.8 **Section R402.4.2.1**

Revise to add the following exception:

Multifamily dwelling units will need to be verified to have an air leakage rate not to exceed 5 air changes per hour.

Construction Standards and Procedures for U.S. Housing and Urban Development (HUD) Homes

Pursuant to sections 24-32-3302(12), 24-32-3302(13), 24-32-3302(20), 24-32-3302(32), 24-32-3305(5), 24-32-3306(1), 24-32-3307(2), 24-32-3309(1)(a), and 24-32-3327, C.R.S., the State Housing Board adopts the following requirements for manufactured homes constructed to the “National Manufacturing Housing Construction and Safety Standards Act of 1974”, 42 U.S.C. sec. 5401 et seq. (manufactured from June 15, 1976 to present):

- 2.8 Compliance with Title 24: Housing and Urban Development; Subtitle B—Regulations Relating to Housing and Urban Development (Continued); Chapter XX—Office of Assistant Secretary for Housing—Federal Housing Commissioner, Department of Housing and Urban Development; Part 3280—Manufactured Home Construction and Safety Standards, of Title 24.
- 2.9 Compliance with Part 3282—Manufactured Home Procedural and Enforcement Regulations of the same title, subtitle, and chapter in section 3.1 of this rule as applied and enforced as the state administrative agency for the federal government.
- 2.10 Compliance with Part 3286—Manufactured Home Installation Program of the same title, subtitle, and chapter in section 3.1 of this rule, which is inspected and enforced through application of the Division of Housing’s adopted Manufactured Housing Installation Codes.
- 2.11 Compliance with Part 3288—Manufactured Home Dispute Resolution Program of the same title, subtitle, and chapter in section 3.1 of this rule as applied and enforced as the state administrative agency for the federal government.

Manufactured Housing Installation Standards

- 2.12 Pursuant to section 24-32-3310, C.R.S., nothing in this rule is intended to interfere with the right of a local jurisdiction to enforce its rules governing the installation of a manufactured home as long as those rules are not inconsistent with this rule. Pursuant to section 24-32-3318, C.R.S., a local jurisdiction may not adopt less stringent standards for the installation of a manufactured home than those adopted by the Division and may not adopt a different standard without express consent by the Division. However, a local jurisdiction may adopt unique public safety requirements such as weigh restrictions for snow loads or wind shear factors.
 - 2.12.1 Factory-built residential structures (modular) must be installed on a permanent foundation approved through the local jurisdiction. In areas where no building codes have been adopted, the foundation must be designed and approved by a State of Colorado licensed engineer unless plans are approved by the Division and in compliance with its adopted International Residential Code (IRC) foundation prescriptive requirements.
- 2.13 Primary Standards (required for all new homes):
 - 2.13.1 The current written installation instructions provided by the manufacturer of the home.
 - 2.13.1.1 An installation of a HUD home in this state must be performed in strict accordance with the applicable manufacturer’s installation instructions. The value of the allowable bearing capacity of the soil the home will rest on must be recorded by the installer on the Installation Authorization form or other Division-approved form and justification for higher values also provided if it is determined to be other than 1,500 psf.
- 2.14 Alternate Standards (for older homes or homes that do not include the manufacturer’s installation instructions) - installation must be in accordance with the following alternate standards adopted by the Division and State Housing Board:
 - 2.14.1 Modular Homes
 - 2.14.1.1 Structural attachment requirements approved by a State of Colorado actively licensed engineer.
 - 2.14.1.2 Current version of the International Residential Code (IRC) as adopted by the State Housing Board.

- 2.14.1.3 24 CFR Part 3285, Model Manufactured Home Installation Standards, April 1, 2009, or most recent version.
- 2.14.1.4 24 CFR Part 3280, Manufactured Home Construction and Safety Standards, April 1, 2009, or most recent version.
- 2.14.1.5 Guide to Foundation and Support Systems for Manufactured Homes, March 2002, U.S. Department of Housing and Urban Development or most recent version.
- 2.14.2 Mobile and HUD homes
- 2.14.2.1 National Fire Protection Association (NFPA) 225, Model Manufactured Home Installation Standard 2013 Edition, including any revisions, additions, and deletions identified below.
- 2.14.2.1.1 **Section 4.4.4 Site suitability with home design**
- Revise to read as follows:
- The installer shall verify data plates provided with a HUD home prior to installation in the state of Colorado. The data plate shall be matched with the home (serial numbers). The data plate shall indicate the following minimums:
- Wind Zone: I
- Thermal Zone: III
- Roof Load: Middle (30 PSF)
- If the data plate does not meet these minimum requirements, the installer shall not set the home. The installer is required to check with the local jurisdiction where the home will be located to determine if it is designed for the area's proven snow or wind load since some parts of the state are subjected to heavy snow and/or high winds?
- 2.14.2.1.2 **Section 5.3 Fire separation distance**
- Revise to read as follows:
- Fire separation distances shall comply with local rules or regulations. In their absence, the most current version of the International Residential Code (IRC) as adopted by the Housing Board applies.
- 2.14.2.1.3 **Section 5.5.2**
- Revise to read as follows:
- Soil that supports footings and foundations shall be capable of accommodating all loads required by this

standard. To help prevent settling or sagging, the foundation must be constructed on firm, undisturbed soil or 90% compacted soil. The design bearing capacity of the soil shall be determined in accordance with Section 5.6.

2.14.2.1.4 **Section 5.6 Investigation and Bearing Capacity of Soil**

Revise as follows:

Soils that appear to be composed of peat, organic clays, uncompacted fill, expansive or other unusual conditions shall have a licensed engineer determine the classification and maximum allowable soil bearing capacity.

Otherwise the bearing capacity of the soil shall be assumed to be 1,500 psf.

A larger bearing capacity for the soil may be used as follows provided the class of soil is known:

Sandy gravel and/or gravel, very dense or cemented sands (GW, GP, SW, SP, GM, SM) ---
----- 2,000 psf

Sedimentary and foliated rock-----
--- 4,000 psf

When a value other than 1,500 psf is determined for the soil bearing capacity it shall be recorded by the installer on the Division of Housing's Installation Authorization form and justification for higher values shall also be provided.

2.14.2.1.5 **Section 5.8.1 Vapor retarder**

Revise as follows:

If the space under the home is to be enclosed with skirting or other material, a vapor retarder that keeps ground moisture out of the home shall be installed unless specifically allowed to be omitted by the authority having jurisdiction.

2.14.2.1.6 **Section 5.8.3.2**

Revise as follows:

The vapor retarder may be placed directly beneath footings, or otherwise installed around or over footings placed at grade, and around anchors or other obstructions. Any voids or tears in the vapor retarder must be repaired.

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- 2.14.2.1.7 **Section 6.2.3.1.2**
- Delete this section.
- 2.14.2.1.8 **Section 6.2.3.1.3.1**
- Revise as follows:
- Tables 6.2.3.1.3(a), 6.2.3.1.3(b), and 6.2.3.1.3(c) for pier capacities, as replaced in Appendix A, shall be used when the manufacturer's installation instructions are not available.
- 2.14.2.1.9 **Section 6.2.3.1.3.2**
- Revise as follows:
- Manufactured piers shall be rated at least to the capacities given in Tables 6.2.3.1.3(a), 6.2.3.1.3(b), and 6.2.3.1.3(c), as replaced in Appendix A, and locally constructed piers shall be designed to transmit these loads safely as required by 6.2.3.2.
- 2.14.2.1.10 **Section 6.2.3.2.2.2**
- Revise as follows:
- Caps shall be of solid masonry of at least 4 in. (100 mm) nominal thickness, or of treated or hardwood dimensional lumber at least 2 in. (50mm) nominal thickness, or of ½" thick steel.
- 2.14.2.1.11 **Section 6.2.3.2.3.1**
- Revise as follows:
- Nominal 4 in. x 6in. (100mmx 150mm) hardwood shims shall be used to level the home and fill any gaps between the base of the I-beam and the top of the pier cap. Any of the following hardwood species may be used: Ash, Beech, Birch, Hickory, Oak, Rock Elm, Black or Red Maple, or Sweetgum.
- 2.14.2.1.12 **Section 6.2.3.2.3.3**
- Revise as follows:
- Hardwood (species identified in the amendment to Section 6.2.3.2.3.1 above) or treated wood plates shall be used to fill in any remaining vertical gap no thicker than 2". The maximum total gap to be filled with shims and plates shall be 2".
- 2.14.2.1.13 **Section 6.2.5.5**

Revise as follows:

All homes. Supports shall be placed on both sides of side wall exterior doors and any other side wall openings greater than 48 in. (such as entry and sliding glass doors), and under porch posts, factory installed fireplaces and wood stoves. Size perimeter piers under openings based on Table 6.2.3.1.3(b), as replaced in Appendix A, "Exterior wall" where the actual side wall opening shall be less than or equal to the spacing selected from the table.

Homes requiring perimeter blocking. Refer to Figure 6.2.5.3 and Figure 6.2.5.4 and Table 6.2.3.1.3(b), as replaced in Appendix A, for homes requiring perimeter blocking in addition to sidewall opening blocking described above.

2.14.2.1.14 **Section 6.3.1.1(2)**

Revise as follows:

6 in. nominal poured in place concrete pads, slabs or ribbons with at least a 28-day compressive strength of 3000 psi. Ribbon footings shall be a minimum 18" wide, reinforced with two #4 horizontal rebar centered vertically in the footing spaced 10" apart with 3" minimum edge margin. Slab footings shall be reinforced with a minimum 10 gauge, 6x6 wire welded mesh.

2.14.2.1.15 **Section 6.3.1.2.2**

Delete this section.

2.14.2.1.16 **Section 6.3.2.1.1**

Add the following:

Footings shall be placed at or below frost line or otherwise protected from frost heave.

2.14.2.1.17 **Section 6.5.2**

Delete this section.

2.14.2.1.18 **Section 7.2**

Revise as follows:

The home shall be installed and leveled by installation personnel approved by the State of Colorado to install manufactured homes.

2.14.2.1.19 **Section 7.3**

Revise as follows:

The interconnection of multi-section homes shall be completed in accordance with the manufacturer's installation instructions. When the manufacturer's installation instructions are not available, the interconnection of multi-section homes shall be in accordance with Table 7.3, as provided in Appendix A, or per the requirements approved by a State of Colorado licensed engineer.

2.14.2.1.20

Section 7.5 Anchoring Instructions

Section 7.5.1 Security against the wind

Section 7.5.1.1

Revise as follows:

After blocking and leveling, the installer shall secure the manufactured home against wind per Section 7.5.2 or Section 7.5.3. Anchorage shall be for Wind Zone I. Homes that are designed for Wind Zone II and III must be anchored per the Manufacturer's Installation Instructions or the requirements of a professional engineer.

2.14.2.1.21

Section 7.5.2 Proprietary Anchorage Systems

Add the following:

A proprietary anchorage system may be used to resist overturning and lateral movement (sliding) caused by wind as long as it complies with all of the following:

1. The system shall be listed by a nationally recognized third-party agency for anchoring manufactured homes.
2. The system shall be evaluated and approved by a licensed professional engineer.
3. The system shall be recognized as acceptable for use by the Division of Housing.
4. The installer shall follow the requirements in the anchorage system installation instructions.

2.14.2.1.22

Section 7.5.3 Ground Anchor System

Section 7.5.3.1 Specifications for Tie-Down Straps and Anchors

Add the following:

Straps and anchors are to have corrosion protection at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 oz/ft² of surface coated. Straps and anchoring equipment must be capable of resisting a minimum ultimate load of 4,725 lbs and a working load of 3,150 lbs as installed; determined by a licensed professional engineer, architect or tested by a nationally recognized third-party agency. Straps are to be 1.25"x0.035" or larger steel strapping conforming to ASTM D 3953, Type 1, Grade 1, Finish B. Anchors are to be installed in accordance with their listing or certification to their full depth.

2.14.2.1.23 **Section 7.5.3.2 Number and Location of Anchors**

Section 7.5.3.2.1 Transverse Anchorage

Add the following:

The number and location of anchors and anchor straps for securing single-section and multi-section manufactured homes in the transverse direction shall conform to the manufacturer's installation instructions. When relocating the home or when the manufacturer's installation instructions are not available, the number and location of anchors and anchor straps shall conform to Table 7.5.3.2.1, Figure 7.5.3.2.1(a), and Figure 7.5.3.2.1(b), as provided in Appendix A.

2.14.2.1.24 **Section 7.5.3.2.2 Longitudinal Anchorage**

Add the following:

The number and location of anchors and anchor straps for securing single-section and multi-section manufactured homes in the longitudinal direction shall conform to the manufacturer's installation instructions. When relocating the home or when the manufacturer's installation instructions are not available, the number and location of longitudinal anchors and anchor straps shall conform to Table 7.5.3.2.2 and Figure 7.5.3.2.1(a), as provided in Appendix A.

2.14.2.1.25 **Section 7.5.3.2.3 Anchor Installation**

Add the following:

The installed ground anchor type and size/length must be listed for use in the soil class at the site and for the minimum and maximum angle permitted between the diagonal strap and the ground and all ground anchors must be installed in accordance with their listing or certification and the ground anchor manufacturer installation instructions. Unless the foundation system is frost-protected to prevent the effects of frost heave, the

ground anchors shall be installed below the frost line. Ground anchor stabilizer plates shall be installed in accordance with the anchor and plate manufacturer installation instructions.

2.14.2.1.26 **Section 7.5.3.2.4 Side wall or over the roof straps**

Add the following:

If sidewall, over-the-roof, mate-line, or shear wall straps are installed on the home, they must be connected to an anchoring assembly.

2.14.2.1.27 **Section 7.6.3 Expanding Rooms**

Revise as follows:

Expanding rooms shall be installed in accordance with the manufacturer's instructions. When the manufacturer's instructions are not available, perimeter blocking shall be installed in accordance with Table 6.2.3.1.3(b), as replaced in Appendix A, and anchors shall be installed in accordance with Section 7.5.3.2.

2.14.2.1.28 **Section 7.7.4.2**

Revise (2) as follows:

(2) Walls-200.

2.14.2.1.29 **Section 8.1 Installation of Site-Installed Features**

Revise as follows:

Carports, awnings, porches, roof covers, and other similar attachments or additions shall not be supported by a manufactured home unless the home was specifically designed to accommodate such attachments or the attachment is designed by a licensed professional engineer. Non-structural connections for flashings and coverings at the junction are acceptable.

2.14.2.1.30 **Section 8.4**

Delete this section.

2.14.2.1.31 **Section 8.8.3**

Revise as follows:

Access opening(s) not less than 18 inches in width and 24 inches in height must be provided and located so that any utility connections are accessible.

2.14.2.1.32 **Section 8.9 Telephone and Cable TV**

Revise as follows:

Telephone, cable TV, and similar wiring shall be installed per the Authority Having Jurisdiction (AHJ) requirements and the National Electric Code (NEC).

2.14.2.1.33 **Section 9.4 Range, Cooktop, Oven Venting, and other Fixtures or Appliances**

Add new Section 9.4.3 to read as follows:

If other fixtures or appliances are to be site-installed, follow the manufacturer's installation instructions. Use only products listed for manufactured homes and follow all applicable local codes.

2.14.2.1.34 **Section 9.7 Furnace, Water Heater, and other Fuel Fired Appliances**

Add this new section to read as follows:

Verify appliance is installed per the manufacturer's installation instructions including any combustion air requirements. Verify flues are in place and are properly connected and extend through the roof with flashings and caps.

2.14.2.1.35 **Section 10.4.2 Orifices and Regulations**

Revise as follows:

Before making any connection to the site supply, the inlet orifices of all gas-burning appliances shall be checked to ensure they are correctly set-up for the type of gas to be supplied and are sized correctly for the altitude above sea level where the home is set. The manufacturer's installation instructions for the appliance shall be followed.

2.14.2.1.36 Chapter 11 Life Safety Features

Revise as follows:

2.14.2.1.36.1 **Smoke Alarms**

Verify smoke alarms are installed to protect the living area, rooms designed for sleeping, on upper levels, and in the basement for homes installed over a basement. Verify smoke alarms are installed and operating properly to meet the requirements of 24 CFR 3280.

2.14.2.1.36.2 **Carbon Monoxide Alarms**

An approved carbon monoxide alarm shall be installed outside of each separate sleeping area within 15 feet of the entrance to the bedrooms in dwelling units within which fuel-fired appliances are installed and in dwelling units that have attached garages.

2.14.2.1.36.3 **Fire Separation Distance**

Fire separation distances shall comply with local rules or regulations. In their absence, the most current version of the International Residential Code (IRC) as adopted by the State Housing Board, shall apply.

2.14.2.1.2 Permanent Foundations Guide for Manufactured Housing (HUD—7584), September 1996 Edition, published by the U.S. Department of Housing and Urban Development (HUD), including any revisions, additions, and deletions identified below, or the most recent version.

2.14.2.1.2.1 Appendix B – Foundation Design Load Tables

Revised as follows:

In the multi-section tables under the marriage wall opening width (ft.), the values given for required effective footings area – Af&g (sq.ft.), shall be divided by 2.

2.15 Upon written request, the Division of Housing will consider modifications to the standards and/or alternate materials and methods of construction. The Division of Housing will require that sufficient evidence or proof be submitted to support and substantiate the modification and/or alternate request.

2.15.1 The Division of Housing may approve any such modification and/or alternate, provided the Division of Housing finds that the proposed modification and/or alternate conforms with the intent and purpose of the standards and is equivalent in suitability, strength, effectiveness, durability, safety, and sanitation.

2.15.2 The approval of any modification and/or alternate by the Division of Housing will be made in writing and is required prior to commencing the work in question.

Rule 3. Fees.

Pursuant to sections 24-32-3309(1)(a), 24-32-3315(5), and 24-32-3323(3), C.R.S., the State Housing Board establishes the following schedule of fees, which are not subject to refund, are due in advance, and must accompany the appropriate application, except for certain inspection fees:

3.1 Annual registration fees:

3.1.1 Plant/Factory: \$600.00

3.1.2 Inspection Agency: \$250.00

3.1.3	Seller/Dealer:	\$200.00
3.1.4	Installer:	\$150.00
3.1.5	Independent Inspector:	\$450.00
3.2	Plan checking fees:	
3.2.1	Finished space:	\$0.25 per sq. ft. (\$160 min.)
3.2.2	Unfinished space (habitable attics, lofts, garages, etc.):	\$0.10 per sq. ft.
3.3	Supplemental plan check fee (revisions, etc.):	\$0.10 per sq. ft. (\$50 min.)
3.4	Third party oversight plan check fee:	\$0.15 per sq. ft. (\$100 min.)
3.5	Insignia fees:	
3.5.1	Primary Insignia:	\$125.00
3.5.2	Additional Floor Tag:	\$125.00
3.5.3	Inspection-only Tag:	\$125.00
3.5.4	Component-only Insignia:	\$125.00
3.5.5	Modification Insignia:	\$125.00
3.5.6	Installation Insignia:	\$60.00
3.6	Inspection fees:	
3.6.1	Plant/Factory certification inspection fee:	\$350.00 per inspection
3.6.2	Oversight inspection fee, including re-inspections:	\$270.00 per inspection/address
(a)	An additional Multi-Box fee is required if the unit has more than 3 boxes – add \$25.00 per box, up to a maximum of \$1,875.00.	
3.6.3	Special inspection fee:	
(a)	In-State: \$50.00 per hour, per inspection, plus trip expenses of travel, food, lodging, parking, car-rental, etc., as allowed in state fiscal rules for per diem and travel.	
(b)	Out-of-State units manufactured in Colorado:	\$350.00 per inspection/unit
3.6.4	Modification inspection fee:	\$175.00
3.6.5	Installation inspection fee:	
(a)	Rough or Final:	\$200.00
(b)	Re-inspection fee:	\$200.00

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- 3.6.6 Non Compliance/Prohibited Sale/Red Tag fee: \$250.00
- 3.7 Certificate of Occupancy fee (only applies to Rule 8): \$125.00
- 3.8 Waiver of fees:
- 3.8.1 Pursuant to section 24-32-3315(7)(a), the Division of Housing does not charge for certification of installers.
- 3.8.2 The Division of Housing waives the fee for certification of an independent inspector.
- 3.8.3 The Division of Housing does not charge for installer or inspector exams.
- 3.8.4 The Division of Housing waives the fee for certification of a plant/factory.
- 3.8.5 The Division of Housing may waive fees for plan reviews and unit certifications that are to be subsidized under local, state, or federal housing programs for low-income households, e.g. Habitat for Humanity.
- 3.8.6 The Division of Housing waives the insignia fee for local jurisdictions that perform installation inspections as authorized participating jurisdictions.

Rule 4. Factory-Built Residential Structures (Modular) and Non-Residential Structures (Commercial) Requirements

- 4.1 Every “factory-built structure” as defined in section 24-32-3302(11), C.R.S., that is manufactured, sold, offered for sale, or occupied in this state must display an insignia issued by the Division of Housing certifying that the structure is constructed in compliance with the codes adopted by the State Housing Board. To assist with that process, pursuant to sections 24-32-3301(1)(a) and 24-32-3301(2)(a), C.R.S., a “manufacturer” as defined in section 24-32-3302(23), C.R.S., is required to be “registered” (based on qualifications) or “certified” (based on performance) with the Division of Housing.
- 4.1.1 Registration or certification is for a specific manufacturing facility location, and is not transferable to any other location including those of the same manufacturer.
- 4.1.2 A registered or certified manufacturer is required to inform the Division of Housing of a change in ownership, address, or location within ten (10) business days of such change.
- 4.2 Registered/Certified manufacturers are required to have that facility’s production certified through a review of its Quality Control (QC) program and the Quality Control personnel that ensure construction code compliance. It is also based on product grading using “Performance Criteria for Monitoring Manufacturers and Third Party Agencies”. The Division of Housing must be notified of any changes to the QC program and/or personnel.
- 4.3 The manufacturer’s QC department must perform “no cover” inspections for all phases of construction on all structures and witness all required tests, regardless of whether the facility is registered or certified.
- 4.4 Upon the manufacturer’s receipt of the approved plans and manual, the third party agency may schedule facility oversight inspections.

Registration

- 4.5 Once issued by the Division of Housing's Building Codes and Standards Section, a registration is active for one (1) year and must be successfully renewed in order to continue manufacturing structures in the state of Colorado or shipping them into the state.
- 4.6 At the time of registration, all manufacturers are required to have Division of Housing approval, in writing, of the third party agency or agencies that will conduct the certification and in-plant inspections of Colorado units. A manufacturer is also required to request approval of the Division of Housing thirty (30) days prior to any subsequent change of its third party agency.

Certification

- 4.7 A manufacturer must meet the following requirements in order to be eligible for certification for a specific location:
- A. Maintain an active Colorado registration for that location,
 - B. Inspected for certification approval on an ongoing basis. Out-of-state manufacturers can ship units to Colorado for field certification inspection by the Division of Housing or a third party agency. Upon completion of certification inspections, a letter recommending certification and a copy of the certification inspection report must be sent by the third party agency to the Division of Housing with a copy to the manufacturer. The Division of Housing will then review the submitted certification inspection report for completeness and accuracy, and review the quality scoring based on the field inspections for certification. The Division of Housing will notify the manufacturer if certification is granted.
- 4.8 The initial certification that is granted by the Division of Housing's Building Codes and Standard Section will last until the end of the current registration period. The ongoing certification period is one (1) year. The registration for that specific location must then be successfully renewed in order for that factory to continue manufacturing structures in the state of Colorado or shipping them into the state under a certified status.
- 4.9 The certification is considered to be ongoing unless conditions warrant immediate removal of it. Conditions for removal of certification are:
- 4.9.1 The change of a third party agency or change in that entity's status.
 - 4.9.2 The change of a facility location.
 - 4.9.3 The facility has had insignias of approval removed pursuant to Division of Housing procedures.
 - 4.9.4 The facility has produced less than five (5) Colorado certified factory-built structures in a calendar year.
- 4.10 A manufacturer demonstrating that it cannot perform within its approval will be placed on a higher frequency of inspection until its performance improves. If its performance does not improve, the Division of Housing may suspend or revoke its certification.

Renewal

- 4.11 Each manufacturer is required to resubmit its Quality Control manual (and when applicable, plans) for approval prior to the registration/certification expiration date that is stamped on the Quality Control manual. This Quality Control manual resubmission is required regardless of when plans are approved or structures shipped. Failure to comply with this requirement will result in

that manufacturer's registered/certified location having to comply with the initial registration/certification inspection requirements.

- 4.11.1 The registration/certification expiration date for all manufacturers is determined by the expiration date that is stamped on the Quality Control manual. Plans that are submitted at the time of registration/certification and/or within the registration/certification period shall have the same expiration date as the Quality Control manual.
- 4.11.2 It is the responsibility of the manufacturer to submit to the Division of Housing the Quality Control manual approval within the authorized sixty (60) day renewal window prior to the expiration date.

Plan Review

- 4.12 All registered or certified manufacturers must obtain prior approval of each set of designs from the Division of Housing or third party agency before constructing structures under those plans.
- 4.13 Plan approvals are granted to a manufacturer for a specific location and are not transferable to other locations including those of the same manufacturer.
- 4.14 Applications for plan review and approval must be made on forms supplied by the Division of Housing and must be accompanied by the appropriate fees from Rule 3 of these rules.
 - 4.14.1 The application must include the quality control manual; it must meet or exceed the minimum requirements as specified by the Division of Housing.
 - 4.14.1.1 Alternative construction (AC), as defined in Rule 1.2 of these rules, must be clearly denoted on the submitted plans for determination of the model as an "AC" structure. The manufacturer is required to follow the Division of Housing "Alternative Construction Procedures" when the model is determined to be an AC. Determination of a model as an AC may happen during plan approval or after plan approval.
 - 4.14.2 All applications must list an officer of the manufacturer that is in a responsible position with the authority to commit the manufacturer to comply with the rules and regulations that govern the regulation of its factory-built structures.
- 4.15 An application will expire and all fees forfeited if it is not completed within 120 days of the initial application date.
 - 4.15.1 Expired applications must be resubmitted as new applications with new application forms, documentation, and fees.
- 4.16 In order to be considered approved, plans and quality control manuals must be stamped by the Division of Housing or third party agency. Revisions, additions, or deletions will not be acceptable without prior approval.
 - 4.16.1 An approved copy of the quality control manual and plan must be retained at the place of manufacture.
 - 4.16.1.1 They must be kept on file within the specific location of manufacture for the purpose of construction and inspection by Division of Housing inspectors or the third party agency.

- 4.16.2 All third party agency approvals must be submitted to the Division of Housing for review and oversight approval.
- 4.16.3 Some building departments require a set of prints with the Colorado approval stamp. This can be addressed by requesting that additional prints be approved and must be provided to the Division of Housing at the time of original application. The Division will provide a Plan Submittal Checklist.
- 4.17 Plan approval does not guarantee a manufactured structure constructed from the approved plan will also be approved. All structures must also undergo an inspection and receive an insignia of approval in order to be considered certified by the State of Colorado. A plan approval does not prevent the Division of Housing or the third party agency from requiring the correction of errors found in the plans or the unit itself, when found in violation of these rules.
- 4.18 Revisions to the approved plan are required where the manufacturer proposes a change in structural, plumbing, heating, electrical, and/or fire life safety systems. Such changes must become part of the approved plan unless the Division of Housing determines that the change constitutes a new model. If determined a new model, the interim change will be processed as a new application. Any difference in fees will also be assessed.
- 4.19 The Division of Housing will approve unchanged plan renewals it previously reviewed and approved, provided there has been no change in adopted codes and the factory officer in Rule 4.10.2 above certifies in writing that the plans are identical to those previously approved by the Division of Housing. A “Supplemental Plan Check Fee” will apply for plan renewals.
- 4.19.1 Should it be determined by the Division of Housing that unauthorized changes have been made to an approved plan, the manufacturer will be subject to a “Red Tag Fee” for every structure built to the changed plans, and the Division may require additional inspections to ensure the code compliance of the structures.
- 4.20 When amendments to these regulations require changes to be made to an approved plan, the Division of Housing will notify the manufacturer of the requirement it a reasonable time to submit revised plans for review and approval. Revised plans will be processed as interim changes with the appropriate fees assessed.

Inspections

- 4.21 All structures manufactured, sold, or offered for sale in the state of Colorado must display the Division of Housing insignias of approval affixed either by the Division of Housing, a third party agency, or by a certified manufacturer. These insignias certify that the unit is constructed in compliance with applicable codes and regulations adopted by the State Housing Board.
- 4.21.1 Registered (non-certified) and certified manufacturers must apply for Colorado insignias through the Division of Housing and submit the appropriate fees provided in Rule 3 of these rules.
- 4.21.1.1 Insignias for registered manufacturers will be affixed to each structure only upon final inspection approval by the Division of Housing or a third party agency.
- 4.21.1.2 Insignias for certified manufacturers will be affixed to Colorado certified structures upon final approval by the manufacturer’s Quality Control manager.

- 4.21.1.3 Insignias affixed by a third party agency or a certified manufacturer must be reported to the Division of Housing, including the insignia number, type of insignia of approval affixed (residential or commercial), manufacturer, serial number, date of manufacture of the structure, and the first destination of the shipped structure. Upon request from the Division of Housing, a manufacturer is required to provide a copy of its monthly production report.
- 4.21.1.3.1 The Division of Housing may elect to not issue additional insignias of approval to a third party agency or certified manufacturer if all insignias affixed are not timely and completely reported.
- 4.21.2 Insignias are assigned for use at a specific location and cannot be transferable or used on an unapproved structure. Colorado insignias of approval issued for one type of certification may not be used on a structure of another (different) type. A silver 3"x5" primary insignia (residential) documenting manufacturer and design information is required for each structure to be installed in the state, or a blue 3"x5" primary insignia (commercial) documenting manufacturer and design information is required for each box to be installed in the state.
- 4.21.2.1 For residential only - each additional habitable floor section requires a silver 2"x2" "Additional Floor Tag" insignia.
- 4.21.2.2 For commercial only – an approved modification requires a green/silver 3"x5" "Modification" insignia.
- 4.21.2.3 For commercial only – components of a structure requires a purple 3"x5" "Component-only" insignia.
- 4.21.2.4 Both – factory-built structures inspected for another state requires a green 2"x2" "Inspection-only" insignia.
- 4.21.3 The primary insignia must be permanently affixed inside the kitchen sink cabinet or inside the vanity cabinet if there is no kitchen sink. For certified manufacturers, this must occur prior to structures being removed from the production location that is certified. Additional Floor Tag insignias, if applicable, are to be permanently affixed and located directly under the primary insignia.
- 4.21.3.1 The primary insignia must contain the serial number, date of manufacture, wind design speed, roof design load, seismic zone, and construction codes.
- 4.21.4 Colorado insignias are the property of the State of Colorado and may be confiscated by the Division of Housing upon any violation of these rules. Defaced, marked in error, or voided insignias must be returned to the Division of Housing without refund.
- 4.22 Whenever an inspection reveals that a structure fails to comply with any provision of these rules, the Division of Housing or the third party agency may affix a "Red Tag Notice" on the structure. All manufacturers must correct any construction code violations within thirty (30) calendar days of inspection. All rework performed to correct deficiencies found with factory construction must be paid by the factory.

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- 4.22.1 Once notified of a “Red Tag Notice” by the Division of Housing or the third party agency and the specific violation(s), the affected parties must resolve the issue(s) with the entity that posted the notice.
 - 4.22.2 Within five (5) working days, the affected parties or their agents must notify, in writing, the Division of Housing or the third party agency of the action taken to correct the violation(s) and what steps have been taken by management to preclude the recurrence of the violation(s). Failure to respond within five (5) days may cause revocation of an affected party’s status.
 - 4.22.3 A structure posted with a “Red Tag Notice” cannot be sold, offered for sale, or have occupancy in the state of Colorado, nor can it be moved or caused to be moved without the prior written approval of the Division of Housing or the third party agency.
 - 4.22.4 All structures posted with a “Red Tag Notice” must be corrected or removed from the state (with prior written approval of the Division of Housing or the third party agency). All structures that are corrected will be reinspected to assure compliance with the codes and regulations, and a reinspection fee will be assessed.
 - 4.22.4.1 Multiple violations may result in the Division of Housing suspending plan reviews submitted by the manufacturer until all issues are addressed.
 - 4.22.5 A “Red Tag Notice” may be removed only by an authorized representative of the Division of Housing or the third party inspection agency.
 - 4.23 Factory-built structures may not be modified, prior to or during, installation at a site without approval from the Division of Housing.
 - 4.24 The Division of Housing and/or the third party agency retained by the manufacturer will conduct certification and production inspections of all manufacturers engaged in manufacturing or offering for sale factory-built structures in the state of Colorado. This inspection will include the quality control program and systems testing.
 - 4.24.1 Payment of the fees provided in Rule 3 is required if utilizing the services of an inspector from the Division of Housing. This cost is not refundable.
 - 4.24.2 All in-state manufacturers shall have the option to contract with a third party agency or continue to use the Division of Housing to perform certifications and in-plant production inspections, to evaluate its registered/certified location’s Quality Control procedures, approve manufacturer engineering manuals and installation instructions and/or approve construction plans.
 - 4.24.3 Out of state manufacturers are required to obtain the services of a third party inspection agency to perform certifications and in-plant production inspections, to evaluate the plant’s Quality Control procedures, and may use an approved third party agency to approve manufacturer engineering manuals, installation instructions, and/or approve construction plans.
 - 4.24.3.1 Another state where a registered/certified manufacturer is located may act as a third party agency for certifications, in-plant production inspections and evaluations of their Quality Control procedures provided it enters into a memorandum of understanding with the Division of Housing and the manufacturer follows all requirements for that entity.

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- 4.25 A third party agency may consist of one of the following entities (any exceptions must have prior approval by the Division of Housing):
- A. States - must enter into a memorandum of understanding with Colorado.
 - B. Local Government – must adopt Division-approved local ordinance or rule.
 - C. Firms – must currently be listed with a national listing agency such as the International Code Council (ICC) International Accreditation Service (IAS) or other Division-approved entity.
- 4.26 Other states that wish to operate as a third party agency inspecting registered/certified manufacturers located in their state and structures manufactured in their state that are to be shipped to Colorado must have existing statutory authority to regulate the design and construction of factory-built structures and enter into a memorandum of understanding with Colorado to establish recognition of the following:
- A. Acceptance of construction codes that are adopted by the State of Colorado Housing Board for factory-built structures sold into or offered for sale in Colorado. (See Rule 2 of these rules).
 - B. Acceptance of the design evaluation and approval performed by the Division of Housing or other third party agency for structures sold into or offered for sale in Colorado.
 - C. Performance of facility certifications and other inspection requirements. Routine inspections include performing inspections of at least one (1) unit in each phase of manufacturing and performing a minimum of a rough, final, and other inspections and/or tests (as required in Rule 2 of these rules) when a production line process is not being utilized. Also to place the manufacturer on a higher frequency of inspection when it is unable to conform, on a continuing basis, to approved Quality Control procedures and or approved plans and standards.
 - D. Evaluation, at the manufacturing facility, of code compliance problems resulting from consumer complaints on labeled Colorado structures; work with the manufacturer(s) in resolving such complaints by adequately following up and assisting them in correcting the complaint issue(s), and their production and/or inspection process.
 - E. Provide sixty (60) days notice before withdrawing from the memorandum of understanding, thereby allowing a manufacturer sufficient time to obtain a new third party agency.
- 4.27 Manufacturers contracted with a firm to perform its inspections are required to be inspected by that entity. A manufacturer may contract with more than one approved third party agency to perform these services. If more than third party agency is under contract, the Division of Housing must be notified as to which inspections each agency is assigned; more than one agency cannot be assigned to the same inspection.
- 4.27.1 Approved third party agencies are authorized to conduct certifications, in-plant production inspections, in-plant evaluations of the plant's Quality Control procedures, review manufacturer engineering manuals, approve plant construction plans, and/or perform Alternative Construction field inspections, in accordance with Division of Housing approved procedures and documents.

- 4.27.2 The structure will be inspected to the approved plans; except where the plans are not specific, then the inspection will be to the standards. The third party agency will also monitor the facility personnel performing the construction, testing, and inspections.
- 4.27.3 A third party agency, when a facility is not certified, must conduct at a minimum a rough, final, and other inspections as required per code (see Rule 2 of these rules) for all structures manufactured.
- 4.27.4 After the Division approves certified status for a manufacturer, a minimum of one (1) phase of construction for each structure being produced for Colorado must be inspected by the third party agency. In the course of each visit, the third party agency also make a complete inspection of every phase of the production, systems testing, and of every structure in production as well as a random sampling of finished product on site.
- 4.27.5 Whenever the third party agency finds that a manufacturer is unwilling or unable to conform on a continuing basis to the approved Quality Control procedures, and/or approved plans or standards, that manufacturing facility will be placed on a higher frequency of inspection. The Division of Housing must be notified and the certification labels held until the manufacturer demonstrates that it can perform within its approved standards. If after three consecutive inspections, the last inspection still indicates that the manufacturer is not able to perform within standards, all remaining insignias paid for by the manufacturer will be returned to the Division of Housing and the manufacturer will be returned to full recertification inspection status.
- 4.27.6 Additional information, such as increased frequency and routine quality assurance inspection reports, will be requested by the Division of Housing in order to review the inspections conducted on specific units.
- 4.27.7 The third party agency is required to provide its own inspection label to be affixed adjacent to the Colorado insignia of approval on each structure to be installed in Colorado.
- 4.27.8 All manufacturers that use a third party agency, other than another state, to perform production inspections, evaluate Quality Control procedures, approve engineering manuals, and/or approve plans, must have such agency request approval from the Division of Housing an approved third party agency for the State of Colorado. Approval requests must contain the following minimum requirements:
- A. Name and address of the entity making application.
 - B. Categories for which the third party agency seeks approval.
 - C. A list of key personnel, with resumes, indicating their primary functions or duties.
 - D. The number of years the entity has actively engaged in the business for which it seeks approval.
 - E. A statement by the third party agency that it will adhere to all the requirements of the Division of Housing.
 - F. An explanation of its plan review, plant certification, and/or inspection procedures, including copies of the quality assurance and other inspection reports.

- G. A copy of the third party agency's ICC IAS or other Division of Housing approved accreditation certificate as required.
 - H. A copy of the Colorado professional Engineer or Architect certification for any employee that will be responsible for plan review and approval work as required.
 - I. A copy of the Colorado professional license and/or ICC inspector certifications for all personnel that will be performing in-plant inspections as required.
 - J. Agreement to furnish any other information that the Division of Housing may deem necessary in order to properly evaluate and grant approval.
 - K. A statement that it is independent and does not have any actual or potential conflict of interest and is not affiliated with, influenced by, or controlled by any present or potential client manufacturer in any manner that might affect its capacity to render service or reports of findings objectively and without bias.
 - L. The request must contain the signature of a responsible officer, owner, or partner of the submitting third party agency.
 - M. A list of the factory-built structures manufacturers that are currently inspected.
- 4.27.9 Third Party Agencies that wish to perform inspections of registered/certified manufacturers and their structures must agree to the following:
- A. Acceptance of construction codes that are adopted by the State of Colorado Housing Board for factory-built structures sold into or offered for sale in Colorado. (See Rule 2 of these rules).
 - B. Acceptance of the design evaluation and approval performed by the Division of Housing or third party agency for structures sold into or offered for sale in Colorado.
 - C. Acceptance and use of the Division of Housing's "Performance Criteria for Monitoring the In-Plant Quality Control Systems of Factory Built Plants" for in-plant inspection agencies.
 - D. Acceptance and use of the Division of Housing "Performance Criteria for Factory-Built Plan Review and Approval" for plan review agencies.
 - E. Performance of facility certifications and other inspection requirements. Routine inspections include performing inspections of at least one (1) unit in each phase of manufacturing and performing a minimum of a rough, final and other inspections and/or tests (as required in Rule 2 of these rules) when a production line process is not being utilized. Also to place the manufacturer on a higher frequency of inspection when it is unable to conform, on a continuing basis, to approved Quality Control procedures and or approved plans and standards.
 - F. Performance of inspection requirements. Routine inspections include performing inspections of at least a minimum of a rough, final, and/or other inspections and/or tests of alternative construction. Also to notify the Division of Housing when a manufacturer is unable to conform, on a continuing basis, to approved plans, standards, and/or make appropriate corrections to construction code compliance issues.

- G. Evaluation at the manufacturing facility of code compliance problems resulting from consumer complaints on labeled Colorado units; work with the manufacturer(s) in resolving such complaints by adequately following-up and assisting them in correcting the complaint issue(s) and their production and/or inspection process.
- H. Provide sixty (60) days notice if no longer interested in fulfilling the above terms, thereby allowing a manufacturer sufficient time to obtain a new third party agency.

4.27.10 Third party agencies may only work in the specific categories for which the Division of Housing has granted approval in writing.

4.27.11 The performance (every aspect of all actions) of all third party agencies will be periodically monitored by the Division of Housing at a frequency adequate to assure that they are fulfilling their responsibilities as required in these rules. The purpose of these certification and other inspections are to evaluate the performance of the manufacturer and inspection agency in ensuring the selected units comply with approved plans and construction codes. Based upon finding(s) of inadequate performance, the frequency of inspections may be increased as determined by the Division of Housing procedures.

4.27.11.1 The monitoring activities carried out by the Division of Housing will consist of the following:

- A. Performing oversight inspections on structures that are shipped to Colorado or produced in Colorado.
- B. Reviewing all records of interpretations of the standards made by the third party agency to determine whether they are consistent and proper.
- C. Reviewing inspection reports, records, and other documents to assure that third party agencies are carrying out all their responsibilities as set forth in these rules.
- D. Reviewing records to assure that the third party agency is maintaining proper label control and records pursuant to the requirements of this program.

4.27.11.2 The Division of Housing will, upon written request, investigate complaints related to adopted construction code interpretation and enforcement. A written request must identify the third party agency, the location of the structure(s) in question, the nature of the dispute, the code section reference, and all involved parties with contact information. Upon receipt of the request, the Division will contact all parties for a written response to the issues. After any necessary follow up, the Division will issue to all parties an interpretation to resolve the code dispute. The Division's interpretation may be appealed to the Colorado State Housing Board's Technical Advisory Committee. The decision of the committee is final.

Rule 5. Sellers, Dealers, Distributors, Retailers of Manufactured Homes

Registration

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- 5.1 Sellers, which include dealers, distributors, and retailers, of HUD and modular homes are required to be actively registered at each retail location in Colorado through the Division of Housing.
- 5.1.1 Advertising or manufactured home sales activities outside of a retail location require a single registration.
- 5.1.2 A realtor is exempt from this requirement pursuant to section 24-32-3323(4), C.R.S., in addition to others.
- 5.2 As part of the registration process, a seller is required to establish and maintain an escrow account for all manufactured housing down payments.
- 5.3 Pursuant to section 24-32-3324, C.R.S., a seller is also required to establish and maintain in the amount of \$50,000 one of the following:
- A. A letter of credit,
- B. Certificate of deposit,
- C. Or surety bond.
- 5.4 Each registration may have more than one location under a parent company in which case each location will be required to pay the annual registration fee provided in Rule 3 of these rules, and can be under the parent company bond, certificate of deposit, or surety bond.
- 5.5 Once a complete application is received by the Division of Housing, the date of registration issued will be the same as the dates on the letter of credit, certificate of deposit, or surety bond. They should all be dated on the first day of the month.

Renewal

- 5.6 A registration is active for one (year) from the date of issuance and a registered seller will be notified a reminder to renew thirty (30) calendar days in advance of the expiration date of his or her registration.
- 5.7 A new application, new letter of credit, certificate of deposit, or surety bond is required to be submitted for the renewed year.

Rule 6. Installations of Manufactured Homes

- 6.1 Every manufactured home installed after the effective date of these regulations that is installed in a temporary or permanent location and is designed and commonly used for occupancy by persons for residential purposes, must display a certificate of installation (insignia) issued by the Division of Housing or an authorized party, certifying that the unit is installed in compliance with the manufacturer's instructions or the Manufactured Housing Installation Standards adopted by the Division in Rule 2.
- 6.1.1 Temporary installations for the purpose of home display prior to use as a residence which will be relocated to another location are exempted from these rules provided these installations are for display use only with no type of occupancy.
- 6.2 Prior to beginning the installation of a manufactured home, the owner, or registered or certified installer of a manufactured home must submit a complete and accurate application for an Installation Authorization issued by the Division or certified installation inspector.

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- 6.2.1 Owners, registered, and certified installers must display an Installation Authorization at the site of the manufactured home to be installed until an installation certification is attached to the manufactured home certifying that the installation is in compliance with the manufacturer's installation instructions or the installation standards in Rule 2 of these rules.
 - 6.2.2 Each authorization for installation will contain the identity of the installer and owner as well as phone number and contact person, and identify the installer as owner, registered, or certified. The certificate will also include the name, address, and telephone number of the agency issuing the Installation Authorization.
 - 6.3 A copy of the manufacturer's instructions must be available at the time of installation and inspection of each new manufactured home. The installer must be responsible to maintain a copy of the manufacturer's instructions at the installation site.
 - 6.3.1 Whenever the applicable standard (manufacturer's instructions, NFPA 225, etc.) for the installation of the manufactured home is not present at the time of the inspection, the inspector may fail the inspection and require a re-inspection of the installation. All costs of the inspection and any following re-inspection will be borne by the installer.
 - 6.3.2 Where the manufactured home is used or is being relocated, the manufacturer's instructions will be used if available. If the manufacturer's instructions are not available, the applicable adopted alternate standard listed in Rule 2 of these rules will be used for the installation.
 - 6.4 All manufactured homes that are found to be in compliance with installation requirements must have a certification of installation (copper colored 3"x5" insignia) completed and permanently attached by the inspector making the inspection or a certified installer.
 - 6.4.1 A certification of installation must be affixed at the interior electrical panel or under the sink cabinet.
 - 6.4.2 Application of the certification of installation is evidence that permanent utility service may be established.
 - 6.5 When a manufactured home installation is not found in compliance with the applicable manufacturer's instructions or other applicable standard or approved plans, the installer and/or manufacturer must be notified in writing by the inspector.
 - 6.5.1 Determination of the responsible party must be to the best of the inspector's knowledge. Documentation must be provided to the inspector for changing a responsible party.
 - 6.5.2 The inspector may, at the time of the inspection, include in the inspection report instructions for the installer to call for re-inspection at any stage to prevent cover up of any part of the installation requiring re-inspection by the inspector.
 - 6.6 The installer must pay for any repairs required to bring the installation into compliance. The installer will pay for any subsequent inspections required by the Division or certified inspector.
 - 6.7 If a vacant manufactured home fails the installation inspection because of conditions that endanger the health or safety of the occupant, the manufactured home cannot be occupied. The unsafe manufactured home will be visibly posted with a "Red Tag Notice" to prevent occupancy.
 - 6.8 If an installation or subsequent repair of an installation by an installer fails to meet the instructions or standards within the time limit allowed by the inspector, the inspector must notify the installer
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that the installation is in violation of requirements. All installers must correct any installation violations within thirty (30) calendar days of inspection or be subject to the issuance of a “Red Tag Notice”.

- 6.9 An installer cannot reduce or eliminate his or her responsibility to perform an “installation” as defined pursuant to section 24-32-3302(16), C.R.S., including without limitation supporting, blocking, leveling, securing, or anchoring a manufactured home on a permanent or temporary foundation system, and connecting multiple or expandable sections of the home.

Registration

- 6.10 Pursuant to sections 24-32-3302(16), 24-32-3302(17), 24-32-3302(31), 24-32-3303(1)(d), 24-32-3304(1)(d), 24-32-3305(1)(c), 24-32-3315, 24-32-3317(3), 24-32-3319, and 24-32-3320, C.R.S., a person must be actively registered with the Division of Housing before attempting to install a manufactured home regardless of whether he or she is paid for such service, including a person who installs more than one (1) manufactured home in any twelve-month period either owned or on real property owned by such person, unless exempted from registration requirements pursuant to section 24-32-3315(1)(b), C.R.S.

6.10.1 Those that are exempted from registration requirements in statute are still required to comply with all provisions of this rule as well as the installation standards provided in Rule 2 of these rules.

- 6.11 In order to be eligible for registration, an application meeting the requirements outlined in section 24-32-3315(6), C.R.S., must be filed with the Division of Housing.

Certification

- 6.12 Pursuant to sections 24-32-3302(4), 24-32-3315(7)(a), and 24-32-3317(2), C.R.S., a registered installer may apply to the Division of Housing for certification under one of the two following classifications or both:

6.12.1 Class A – Modular Only. Submit evidence of five (5) Division-approved installations of manufactured homes built to the building codes adopted by the State Housing Board, including at least one AC; completed within an 18-month period.

6.12.2 Class B – HUD homes only. Submit evidence of five (5) Division-approved installations of manufactured homes built to the “National Manufactured Housing Construction and Safety Standards Act of 1974”, 42 U.S.C. sec. 5401 et seq., and any standard promulgated by the Secretary of the U.S. Department of Housing and Urban Development (HUD) pursuant to the federal act; completed within an 18-month period.

- 6.13 Evidence of installation must include copies of all inspection reports for each installation issued by the Division of Housing or a certified installation inspector. If in the judgment of the Division, such installer has demonstrated the ability to successfully complete installations of manufactured homes in accordance with the requirements of the specific classification he or she has applied, a certification inspection will be scheduled. Certification will be granted at that classification if the installation is approved.

6.13.1 If the review of the evidence of the installations does not clearly demonstrate the ability to successfully complete installations in compliance with the requirements, the Division may require additional installations to be performed, reviewed, and accepted prior to scheduling a certification inspection.

- 6.14 A certified installer is authorized to independently post an “installation authorization” on the installation site and to certify the installation by affixing a certificate of installation (insignia) authorized by the Division after the installation is completed in compliance with all requirements.
- 6.14.1 The certified installer must then report that he or she certified the installation to the Division.
- 6.14.2 Installations performed by a certified installer do not require an inspection by the Division or a certified inspector. However, pursuant to sections 24-32-3315(7)(b), 24-32-3317(2), and 24-3317(6), C.R.S., one of the parties identified may request the Division of Housing to inspect an installation performed by certified installer.

Renewal

- 6.15 A registered installer is required to timely renew his/her registration once a year and in compliance with the requirements of section 24-32-3315 in order to continue performing installations in the state of Colorado.
- 6.16 A certified installer must timely and completely renew his or her registration with the Division of Housing as required above in Rule 6.15 in order to maintain his or her certification. A certification will automatically expire if a registration is not successfully renewed.

Education

- 6.17 The Division of Housing will review all educational courses submitted and will grant course approval in writing. The Division of Housing may audit courses and may request from each entity offering a Division-approved course, all instructional material and attendance records as may be necessary for an investigation. Failure to comply may result in the withdrawal of Division approval of the course.
- 6.18 All continuing education courses must contain at the minimum the following instructional material:
- A. Blueprint reading and comprehension.
 - B. Discussion of structural issues. For example: hinged roofs, cape cod roofs, marriage line fastening and support, foundation sizing, etc.
 - C. A review of Colorado law, rules and/or policies as they pertain to the technical issues being discussed at the training.
- 6.19 All continuing education courses may be offered and completed by distance learning.
- 6.20 The following course format and administrative requirements apply to all Colorado continuing installation education for installers and inspectors:
- A. Courses must be at least one hour in length and contain at least 50 instructional minutes per course hour.
 - B. A maximum of eight-hours of credit may be earned per day.
 - C. No course may be repeated for credit in the same registration period.
 - D. Instructors may receive credit for classroom teaching hours once per course taught per year.

- E. A volunteer member of the State Housing Board’s Technical Advisory Committee (TAC) may receive credit for participating in the process of recommending rule amendments/adoptions once per year.
 - F. Hours in excess of the required amount may not be carried forward to satisfy a subsequent renewal requirement.
 - G. No school/provider may waive, excuse completion of, or award partial credit for the full number of course hours.
- 6.21 Each Colorado installer or inspector is responsible for securing from the provider evidence of course completion in the form of an affidavit or certificate of attendance. Documentation must be in sufficient detail to show the name of the licensee, course subject, content, duration, date(s), and contain the authentication of the provider.
- 6.21.1 For distance learning an affidavit of completion signed under penalty of perjury is the only acceptable proof.
 - 6.21.2 In person courses may have a certificate signed by the instructor at the end of the course.
 - 6.21.3 Installers and inspectors must retain proof of continuing education completion for three years, and provide said proof to the Division upon request.
- 6.22 Each approved education provider must retain copies of course outlines or syllabi and complete attendance records for a period of three years.
- 6.23 Continuing education providers must submit an application form along with the following information at least 30-days prior to the proposed class dates:
- A. Detailed course outline or syllabus, including the intended learning outcomes, the course objectives, and the approximate time allocated for each topic.
 - B. A copy of the course exam(s) and instructor answer sheet if applicable. In the absence of an exam, the criteria used in evaluating a person’s successful completion of the course objectives.
 - C. Copy of instructor teaching credential; if none, a resume showing education and experience which evidence the mastery of the material to be presented.
 - D. A copy of advertising or promotional material used to announce the offering.
 - E. Upon Division request, a copy of textbook, manual, audio, videotapes, or other instructional materials.
- 6.24 By offering installation continuing education in Colorado, each provider agrees to comply with relevant statutes and rules and to permit the Division of Housing to audit courses at any time and at no cost.

Inspectors

- 6.25 Pursuant to sections 24-32-3302(15), 24-32-3315(7)(b), 24-32-3317(2), 24-32-3317(5)(a), 24-32-3317(6), 24-32-3317(7), 24-32-3317(8), 24-32-3317(9), and 24-32-3322, C.R.S., the Division may authorize independent contractors to perform installation inspections and enforcement of proper installation of manufactured homes.

- 6.26 Pursuant to section 24-32-3317(8), C.R.S., the Division of Housing establishes the following qualifications and area of expertise necessary for inspecting manufactured homes as acceptable in addition to the qualifications and requirements already listed in the statute:
- A. State of Colorado professional license in engineering or related construction fields.
- 6.27 The Division of Housing may revoke the certification of any inspector who fails to maintain the minimum requirements for the certification, has a conflict of interest impairing his or her ability to make impartial inspections, or if investigation of complaints by the Division reveals that the inspector has repeatedly failed to enforce the requirements of these rules.
- 6.28 A certified inspector may not perform inspections where the inspector has a conflict of interest that may impair his or her ability to make fair and impartial inspections.
- 6.29 A certified inspector is required to renew his or her certification every three (3) years in compliance with 24-32-3317(8), C.R.S.
- 6.30 Where a local jurisdiction has established a building department, the building official or other approved authority may make a written request to be the exclusive independent installation inspection agency within their legal boundaries as a “participating jurisdiction”.
- 6.30.1 When granted by the Division of Housing, all manufactured home installation inspections in that area will be made by that participating jurisdiction’s certified installation inspectors or by a certified installation inspector under contract with the jurisdiction.
- 6.30.2 Division inspectors or Division designated independent inspectors may perform inspections within the participating jurisdiction in response to a complaint.

Rule 7. Enforcement

- 7.1 The Division of Housing may deny an application for registration, certification, including renewal, or impose a condition on it, i.e. suspend for a period of time, issue a fine, etc. if it is in violation of statute and/or these rules.
- 7.1.1 A registered or certified installer may be fined up to \$1,000 for each installation performed in violation of statute, these rules, including the standards adopted in Rule 2, or a manufacturer’s installation instructions.
- 7.2 Pursuant to section 24-32-3307, C.R.S., the Director of the Division of Housing may pursue injunctive relief in District Court against manufacturers that fail to construct structures in accordance with their approved plans and Quality Control manual, fail to correct code violations, fail to comply with C.R.S. 24-32-Part 33, or fail to comply with these rules.
- 7.3 The State Housing Board may revoke a registration or certification after notice and hearing pursuant to sections 24-4-104 & 24-4-105, C.R.S., whenever a violation of any provision of these regulations and/or statutes occurs, or when a registration or certification is issued on the basis of incorrect information supplied by the applicant.
- 7.3.1 A person or entity with a registration or certification that is revoked may not apply for a new registration or certification until at least one (1) year has passed from the date it went into effect.
- 7.3.2 An installer whose certification has been revoked may apply for recertification after one (1) year and must submit five (5) new installations for consideration.

- 7.4 A certified inspector that knows of an installation that is in default and has not been corrected by subsequent repair must request that the Division investigate the installation. The Division may revoke, suspend, or fail to renew the registration or certification of the installer and cause the forfeiture of the installer's surety bond on behalf of the owner of the manufactured home for failing to comply with the Division's standards regarding installation of a manufactured home.
- 7.5 The Division of Housing must promptly notify the applicant or entity of a denial, suspension, fine, revocation or any other condition(s) imposed. The party may, within sixty (60) days following such action, request a hearing before an Administrative Law Judge with the Office of Administrative Courts. If requested, a hearing must be conducted pursuant to section 24-4-105, C.R.S. Thereafter, the final decision of the Housing Board shall be subject to judicial review in accordance with section 24-4-106, C.R.S.
- 7.6 The Division may investigate complaints filed against factories, sellers, and/or installers as necessary to enforce and administer these regulations.
- 7.7 The Division may designate a certified inspector to make inspection on behalf of the Division to aid in the investigation of consumer complaints.

Appendix A

Table 6.2.3.1.3(a)

Single and Multi Section Pier Loads Without Perimeter blocking
 (at both I beams, in Lbs)
 See section 6.2.5.5 for required perimeter blocking at side wall openings
 See Table 6.2.3.1.3(c) for piers required under marriage line openings

Roof snow load (PSF)	Section Width (feet)	Maximum pier spacing			
		4'	6'	8'	10'
30	10	2360	3390	4420	5450
	12	2704	3906	5108	6310
	14	3048	4422	5796	7170
	16	3392	4938	6484	8030
40	10	2600	3750	4900	6050
	12	2984	4326	5668	7010
	14	3368	4902	6436	7970
	16	3752	5478	7204	8930
60	10	3080	4470	5860	7250
	12	3544	5166	6788	8410
	14	4008	5862	7716	9570
	16	4472	6558	8644	10730
80	10	3560	5190	6820	8450
	12	4104	6006	7908	9810
	14	4648	6822	8996	11170
	16	5192	7638	10084	12530
100	10	4040	5910	7780	9650
	12	4664	6846	9028	11210
	14	5288	7782	10276	12770
	16	5912	8718	11524	14330

Notes:

1. See Table 6.3.3 for footing design using the noted loads
2. This Table is based on the following design assumptions:
 Nominal width is used, 12" eave, 20plf chassis dead load, 300 lbs. Pier dead load,
 35 plf wall dead load, 10psf roof dead load and 6 psf floor dead load
3. Interpolation for other pier spacing is permitted
4. These loadings are not for flood or seismic conditions.

Table 6.2.3.1.3(b)

Single and Multi Section Pier Loads With Perimeter blocking
 (Lbs)
 See section 6.2.5.5 for required perimeter blocking at side wall openings
 See Table 6.2.3.1.3(c) for piers required under marriage line openings

Roof snow load (PSF)	Section Width (ft)	Frame				Exterior wall				Marriage wall			
		Maximum pier spacing				Maximum pier spacing				Maximum pier spacing			
		4'	6'	8'	10'	4'	6'	8'	10'	4'	6'	8'	10'
30	10	1400	1950	2500	3050	1400	1950	2500	3050	2480	3420	4360	5300
	12	1584	2226	2868	3510	1560	2190	2820	3450	2800	3900	5000	6100
	14	1768	2502	3236	3970	1720	2430	3140	3850	3120	4380	5640	6900
	16	1952	2778	3604	4430	1880	2670	3460	4250	3440	4860	6280	7700
40	10	1400	1950	2500	3050	1640	2310	2980	3650	2880	4020	5160	6300
	12	1584	2226	2868	3510	1840	2610	3380	4150	3280	4620	5960	7300
	14	1768	2502	3236	3970	2040	2910	3780	4650	3680	5220	6760	8300
	16	1952	2778	3604	4430	2240	3210	4180	5150	4080	5820	7560	9300
60	10	1400	1950	2500	3050	2120	3030	3940	4850	3680	5220	6760	8300
	12	1584	2226	2868	3510	2400	3450	4500	5550	4240	6060	7880	9700
	14	1768	2502	3236	3970	2680	3870	5060	6250	4800	6900	9000	11100
	16	1952	2778	3604	4430	2960	4290	5620	6950	5360	7740	10120	12500
80	10	1400	1950	2500	3050	2600	3750	4900	6050	4480	6420	8360	10300
	12	1584	2226	2868	3510	2960	4290	5620	6950	5200	7500	9800	12100
	14	1768	2502	3236	3970	3320	4830	6340	7850	5920	8580	11240	13900
	16	1952	2778	3604	4430	3680	5370	7060	8750	6640	9660	12680	15700
100	10	1400	1950	2500	3050	3080	4470	5860	7250	5280	7620	9960	12300
	12	1584	2226	2868	3510	3520	5130	6740	8350	6160	8940	11720	14500
	14	1768	2502	3236	3970	3960	5790	7620	9450	7040	10260	13480	16700
	16	1952	2778	3604	4430	4400	6450	8500	10550	7920	11580	15240	18900

Notes:

1. See Table 6.3.3 for footing design using the noted loads
2. This Table is based on the following design assumptions:
 Nominal width is used, 12" eave, 20plf chassis dead load, 300 lbs. Pier dead load, 35 plf wall dead load, 10psf roof dead load and 6 psf floor dead load
3. Interpolation for other pier spacing is permitted
4. These loadings are not for flood or seismic conditions.

Table 6.2.3.1.3(c)

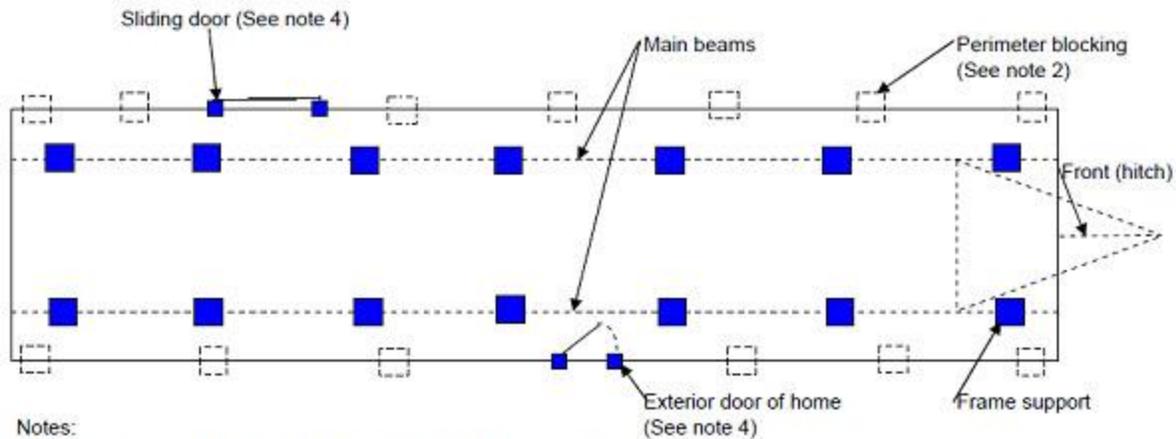
Multi Section Pier Loads Under Marriage Line Openings
 (Under each end of opening in Lbs)
 See section 6.2.5.5 for required perimeter blocking at side wall openings

Roof snow load (PSF)	Section Width (ft)	Marriage wall opening width									
		5'	8'	10'	12'	14'	16'	18'	20'	25'	30'
30	10	1300	1900	2300	2700	3100	3500	3900	4300	5300	6300
	12	1500	2220	2700	3180	3660	4140	4620	5100	6300	7500
	14	1700	2540	3100	3660	4220	4780	5340	5900	7300	8700
	16	1900	2860	3500	4140	4780	5420	6060	6700	8300	9900
40	10	1550	2300	2800	3300	3800	4300	4800	5300	6550	7800
	12	1800	2700	3300	3900	4500	5100	5700	6300	7800	9300
	14	2050	3100	3800	4500	5200	5900	6600	7300	9050	10800
	16	2300	3500	4300	5100	5900	6700	7500	8300	10300	12300
60	10	2050	3100	3800	4500	5200	5900	6600	7300	9050	10800
	12	2400	3660	4500	5340	6180	7020	7860	8700	10800	12900
	14	2750	4220	5200	6180	7160	8140	9120	10100	12550	15000
	16	3100	4780	5900	7020	8140	9260	10380	11500	14300	17100
80	10	2550	3900	4800	5700	6600	7500	8400	9300	11550	13800
	12	3000	4620	5700	6780	7860	8940	10020	11100	13800	16500
	14	3450	5340	6600	7860	9120	10380	11640	12900	16050	19200
	16	3900	6060	7500	8940	10380	11820	13260	14700	18300	21900
100	10	3050	4700	5800	6900	8000	9100	10200	11300	14050	16800
	12	3600	5580	6900	8220	9540	10860	12180	13500	16800	20100
	14	4150	6460	8000	9540	11080	12620	14160	15700	19550	23400
	16	4700	7340	9100	10860	12620	14380	16140	17900	22300	26700

Notes:

1. See Table 6.3.3 for footing design using the noted loads
2. This Table is based on the following design assumptions:
 Nominal width is used, 300 lbs. Pier dead load,
 10psf roof dead load
3. Interpolation for other pier spacing is permitted
4. For piers supporting two adjacent openings, the required capacity is the sum of the loading from each opening.
5. These loadings are not for flood or seismic conditions.

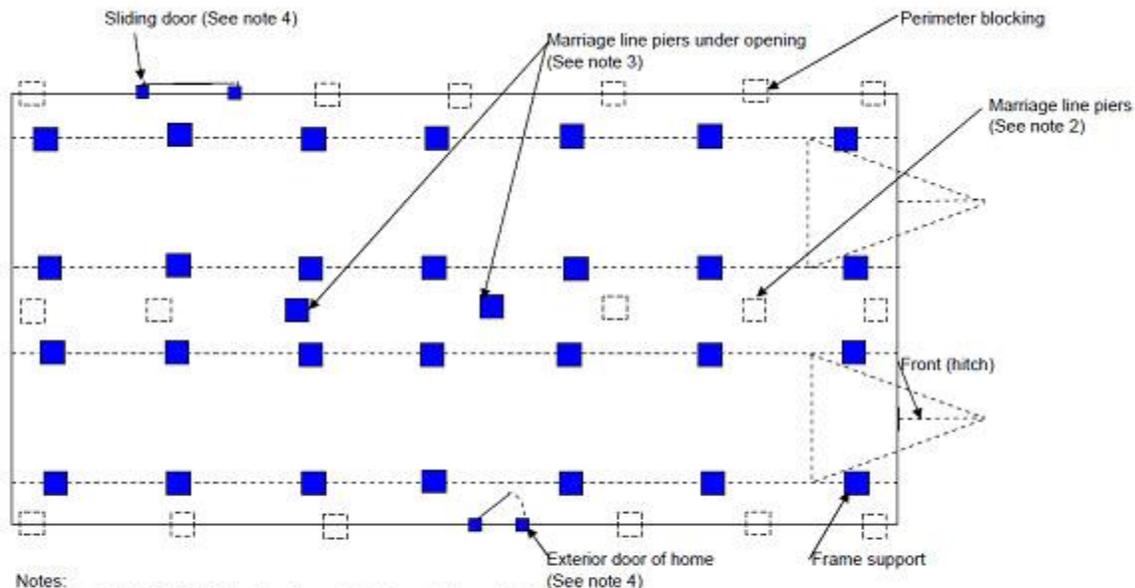
FIGURE 6.2.5.3 Typical blocking Diagram for a Single Section



Notes:

1. Refer to Table 6.2.3.1.3(a) when frame blocking only is required.
2. Refer to Table 6.2.3.1.3(b) when perimeter blocking is required.
3. Locate piers a maximum of 24 inches from both ends.
4. **All homes:** Place piers on both sides of sidewall exterior doors, patio doors, and sliding glass doors; under porch posts, factory-installed fireplaces, and fireplace stoves; under jamb studs at multiple window openings; and at any other sidewall openings 48 inches or greater in width.

FIGURE 6.2.5.4 Typical blocking Diagram for a Multi-section home



Notes:

1. Refer to Table 6.2.3.1.3(a) when frame blocking only is required.
2. Refer to Table 6.2.3.1.3(b) when perimeter blocking is required.
3. Refer to Table 6.2.3.1.3(c) for piers under marriage line wall openings.
4. Locate piers a maximum of 24 inches from both ends.
5. **All homes:** Place piers on both sides of sidewall exterior doors, patio doors, and sliding glass doors; under porch posts, factory-installed fireplaces, and fireplace stoves; under jamb studs at multiple window openings; and at any other sidewall openings 48 inches or greater in width.

Table 7.3 Connections of Multi-Box Home

Shim any gaps between structural elements prior to connection with dimensional lumber up to one inch. If gaps exceed one inch, re-position home to eliminate gapping condition.

CONNECTOR LOCATION	CONNECTOR SIZE	FASTENER ANGLE	FASTENER SPACING
Roof support beam at ridge or ceiling line	1/2 inch carriage bolts	90 degrees	48 inches on center
Roof ridge beam or ridge rail	3/8 inch lag screws with washers	Approx 45 degrees	24 inches on center each side and staggered
Roof rafter connection	4x12 inch 18 gauge galv strap centered on truss and peak	90 degrees into truss	48 inches on center for straps, 5-10d nails each side of ridge
or	8 inch continuous 18 gauge galv metal sheet centered on peak	90 degrees into roof sheathing/beams/truss	8D nails at 6 inches on center each side of ridge
Floor rim joist connection	3/8 inch lag screws with washers	Approx 45 degrees	24 inches on center each side and staggered
End wall and interior wall connection	#8 wood screws	Approx 45 degrees	18 inches on center

Notes:

1. Fastener length shall be adjusted as required to obtain full penetration into all structural members being connected on both sides of the marriage line.
2. 3/8" lag screws are to be piloted with 1/4" dia. holes prior to installation.
3. When the support post for a roof support beam can only be located on one side of the marriage line, install eight 1/2" cluster bolts with washers, spaced 4" on center, centered on the post, to connect the roof support beams together.

Table 7.5.3.2.1 Number and Location of Ground Anchors

Section Floor Width	Main I-Beam spacing (in)	Max height from ground to strap attachment (in)	Anchor Spacing (ft)	Angle
10 ft 20 ft double wide	82.5	25	9	59 1/2
		33	12	FAR BEAM 18 1/2
		46	12	FAR BEAM 25 1/2
		67	11 1/2	FAR BEAM 34 1/2
	99.5	25	12	FAR BEAM 13 1/2
		33	12	FAR BEAM 17 1/2
		46	12	FAR BEAM 23 1/2
		67	11 1/2	FAR BEAM 32 1/2
12 ft 24 ft double wide	82.5	25	12	43
		33	10 1/2	51
		46	7 1/2	60
		67	11 1/2	FAR BEAM 31 1/2
	99.5	25	10	54
		33	12	FAR BEAM 15 1/2
		46	12	FAR BEAM 21 1/2
		67	11 1/2	FAR BEAM 29 1/2
14 ft 28 ft double wide	82.5	25	12	33
		33	12	40 1/2
		46	9 1/2	50
		67	6 1/2	60
	99.5	25	12	39 1/2
		33	11	47 1/2
		46	8	56 1/2
		67	11 1/2	FAR BEAM 27 1/2
16 ft 32 ft double wide	82.5	25	N/A	26
		33	12	33
		46	10 1/2	42
		67	8	53
	99.5	25	12	30 1/2
		33	12 1/2	38
		46	10	47 1/2
		67	7	58

Notes:

- See Figures 7.5.3.2.1(a) and (b).
- This Table is based on the following design assumptions:
 8' wall height, 4/12 roof pitch, 4 inch anchor inset from home edge, 12' max anchor spacing
- Main beam spacing outside those shown may be used provided the inside strap angle from the ground to the strap is less than the angle shown and is between 30 and 60 degrees or connection is provided to both the near and far beam. Choose spacing from values shown.
- FAR BEAM. Spacings shown with FAR BEAM require connection to **both** the near and far beam. This also applies to other main I beam spacing. See note 3.
- Anchors must have a 3150 lbs working load capacity and be installed within 2' of each end of the home.
- These spacings are not for flood or seismic conditions.

FIGURE 7.5.3.2.1(a) Anchor spacing and location

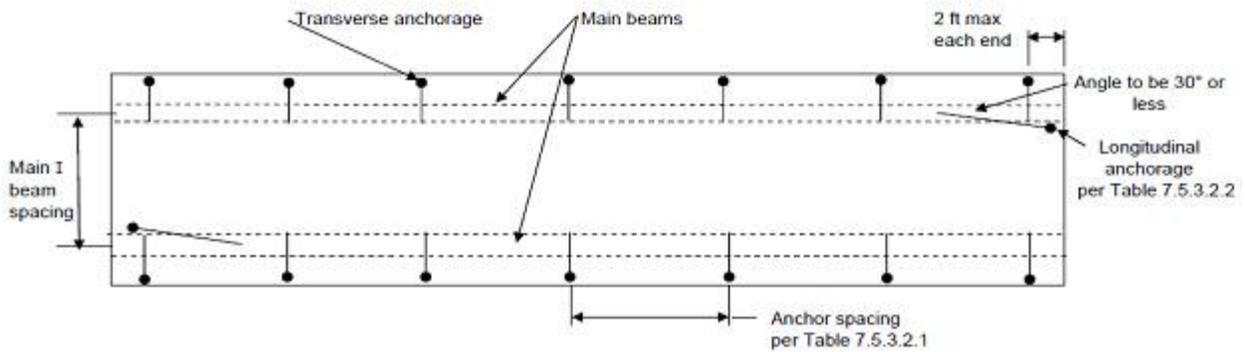


FIGURE 7.5.3.2.1(b) Anchor position using diagonal straps

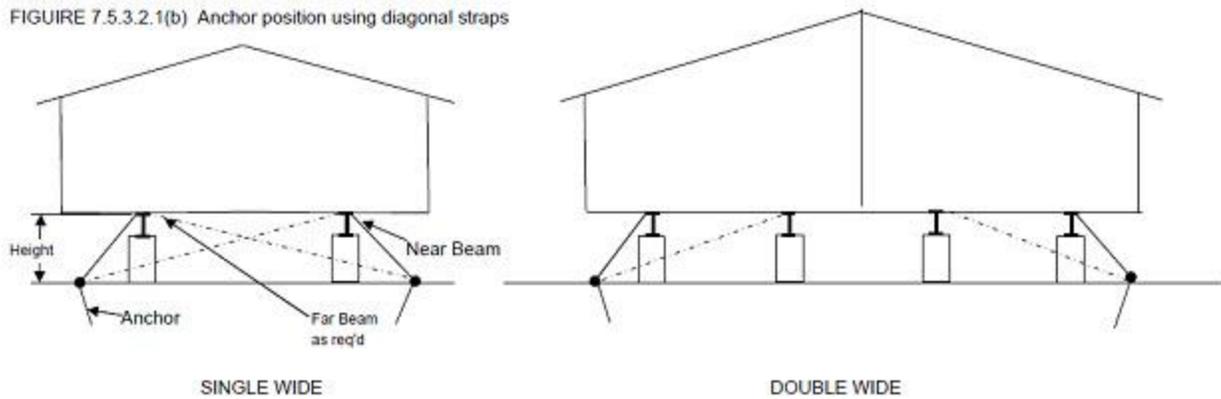
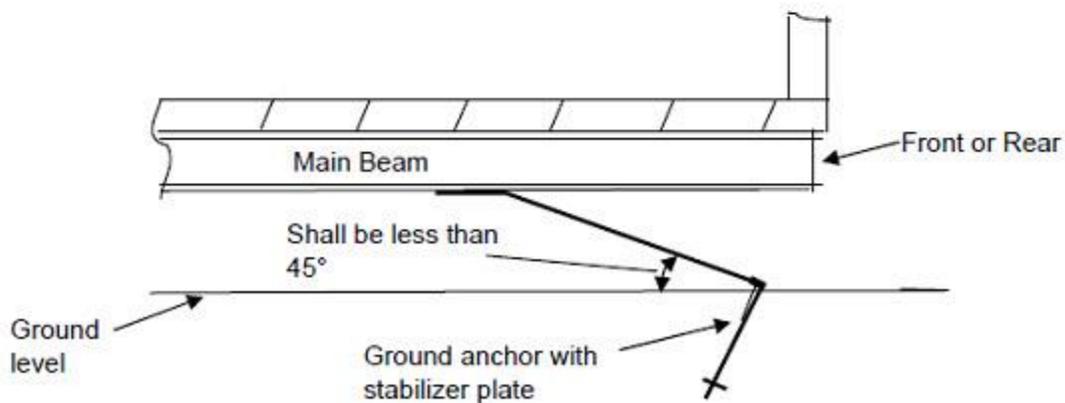


Table 7.5.3.2.2 Longitudinal Anchorage

NUMBER OF STRAPS REQUIRED AT <u>EACH</u> END OF THE HOME				
Number of Sections	Max Section Width (feet)			
	10	12	14	16
SINGLE WIDE	1	1	1	1
DOUBLE WIDE ¹	2	2	2	3

Footnote¹ Number of anchors may be reduced by 1 for homes greater than 60 feet in length

Notes: 1. Longitudinal straps shall be attached to the home's main frame as specified by the manufacturers installation instructions.



APPENDIX B

DEGREE DAYS AND DESIGN TEMPERATURES FOR COLORADO CITIES AND TOWNS

Location	Heating Degree Days	Design Temperatures°F			Elevation (feet) above sea
		Winter 97½%	DB 2½%	Summer WB 2½%	
1 Alamosa	8749	-16	82	61	7546
2 Aspen	9922	-1	81	59	7928
3 Boulder	5554	2*	91	63	5385
4 Buena Vista	8003	-1	83	58	7954
5 Burlington	6320	2	95	70	4165
6 Canon City	4987	8	90	64	5343
7 Cheyenne Wells	5925	1	97	70	4250
8 Colorado Springs	6415	2	88	62	6012
9 Cortez	6667	5	88	63	6177
10 Craig	8403	-14	86	61	6280
11 Creede	11375	-18	80	58	8842
12 Del Norte	7980	-4	81	60	7884
13 Delta	5927	6	95	62	4961
14 Denver	6020	1	91	63	5283
15 Dillon	11218	-16	77	58	9065
16 Dove Creek	7401	-6	86	63	6843
17 Durango	6911	4	87	63	6550
18 Eagle	8106	-11	87	62	6600
19 Estes Park	7944	-7	79	58	7525

HDD data taken from Department of Energy (Rescheck 4.4.2), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2012 IPC appendix D).

Degrees North Latitude may be obtained at www.ncdc.noaa.gov

* Per Local. 8° per 1985 ASHRAE

DEGREE DAYS AND DESIGN TEMPERATURES FOR COLORADO CITIES AND TOWNS

Location		Heating Degree Days	Winter 97½%	Design Temperatures°F		Elevation (feet) above sea
				DB 2½%	Summer WB 2½%	
20	Ft. Collins	6368	-4	91	63	5001
21	Ft. Morgan	6460	-5	92	65	4321
22	Fraser	9777	-22	76	58	8560
23	Glenwood Springs	7313	5	91	63	5823
24	Granby	9316	-	---	---	7935
25	Grand Junction	5548	7	94	63	4586
26	Greeley	6306	-5	94	64	4648
27	Gunnison	10516	-17	83	59	7664
28	Holyoke	6583	-2	97	69	3746
29	Idaho Springs	8094	0	81	59	7555
30	Julesburg	6447	-3	98	69	3469
31	Kit Carson	6372	-1	98	68	4284
32	Kremmling	10095	-19	85	59	7359
33	La Junta	5263	3	98	70	4066
34	Lamar	5414	0	98	71	3635
35	Last Chance	-----	-2	92	65	4790
36	Leadville	11500	-14	81	55	10,152
37	Limon	6961	0	91	65	5366
38	Longmont	6443	-2	91	64	4950
39	Meeker	8658	-6	87	61	6347
40	Montrose	6393	7	91	61	5830
41	Ouray	7639	7	83	59	4695

HDD data taken from Department of Energy (Rescheck 4.4.2), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2012 IPC appendix D).

Degrees North Latitude may be obtained at www.ncdc.noaa.gov

DEGREE DAYS AND DESIGN TEMPERATURES FOR COLORADO CITIES AND TOWNS

Location	Heating Degree Days	Winter 97½%	Design Temperatures°F		Elevation (feet) above sea
			DB 2½%	Summer WB 2½%	
42 Pagosa Springs	8548	-9	85	61	7079
43 Pubelo	5413	0	95	66	4695
44 Rangely	7328	-8	93	62	5250
45 Rifle	6881	0	92	63	5345
46 Saguache	8781	-3	82	61	7697
47 Salida	7355	-3	84	59	7050
48 San Luis	8759	-10	84	60	7990
49 Silverton	11064	-13	77	56	9322
50 Springfield	5167	3	95	71	4410
51 Steamboat Springs	9779	-16	84	61	6770
52 Sterling	6541	-2	93	66	3939
53 Trinidad	5339	3	91	65	6025
54 Uravan	-----	8	97	63	5010
55 Vail	9248	-14	78	59	8150
56 Walden	10378	-17	79	58	8099
57 Walsenburg	5438	1	90	63	6220
58 Wray	6160	-1	95	69	3560
59 Yuma	5890	-2	95	69	4125

HDD data taken from Department of Energy (Rescheck 4.4.2), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2012 IPC appendix D).

Degrees North Latitude may be obtained at www.ncdc.noaa.gov