



CITY OF LITTLETON BUILDING DIVISION

Policy #20-005

5/14/2020

(Revised 6/12/23)

ROOF COVERING INSTALLATION AND INSPECTION REQUIREMENTS

PURPOSE

To insure the proper installation and inspection of roofing coverings, clarification of applicable codes, and consistency in application and inspection procedures.

POLICY

Section 1: Installation and inspection of asphalt, metal or clay/concrete shingle or tile roof coverings shall comply with all adopted City of Littleton codes and amendments and the following:

1. Permits are required to be obtained prior to commencement of work and displayed in a location visible from the street and shall provide a complete description of work, including replacement or overlay of roof sheathing. All roof coverings and systems shall be installed in compliance with applicable codes and manufacturer's installation guidelines. In the case of a conflict between manufacturer's installation guidelines and adopted codes and amendments, the most restrictive requirements shall apply. Work initiated prior to obtaining a permit or without a valid City of Littleton contractor's license will result in the addition of an investigative fee equal to the cost of the permit and may result in issuance of a Stop Work order and/or municipal summons. Inspections will not be completed unless a valid permit is on site and in a visible, accessible location.
2. Replacement of one (1) square (100 square feet) aggregate area of roofing or more requires a building permit. If the amount is less than one (1) square (100 square feet) aggregate area, a permit is not required.
3. Roof decks with spaced or board sheathing that are to receive asphalt shingles or clay/concrete tiles and that have **any** gap exceeding 1/2-inch shall be required to be overlaid with panel sheathing such as plywood or OSB that is a minimum of 3/8-inch in thickness. Amendment of existing permits is required if the need for installation of sheathing is discovered after permit issuance and sheathing installation was not previously indicated on the permit. Sheathing panels shall be fastened with nails spaced at a maximum of 6 inches on center at edges and 12 inches on center in rows not further than 24 inches apart and vertical panel edges shall break on framing members. An inspection of sheathing fastening by Building Division staff is required prior to installation of roof underlayment or coverings.
4. Ice and water barrier underlayment complying with ASTM D1970 and extending a minimum of two (2) feet inside the exterior wall line is required at eaves of all conditioned structures. In valleys, one of the following materials is required: Closed Valleys - Ice and water barrier underlayment a minimum of 36 inches wide; Open Valleys - one(1) layer of 24-

inch wide galvanized metal; or two(2) layers of mineral-surfaced rolled roofing, one(1) 18 inches wide and one(1) 36 inches wide.

5. Galvanized drip edge flashing is required at all edges of roofs.

6. **A mid-roof inspection for asphalt and concrete/clay tile roof coverings is required.** Pre-roof inspections are no longer required. A minimum of 25% and a maximum of 75% of roof covering material, and 100% of all underlayment and flashings, is required to be installed at the time of performance of the required mid-roof inspection. A ladder, extending 3 feet above the roof eave, shall be provided and secured at the time of inspection for all roof inspections, and permission to enter the yard is required if the inspector must pass through a fence or enter the rear yard of the property to access the ladder. Inspectors will not go through fences or enter rear yards without permission or when pets are present.

7. Asphalt shingles complying with ASTM D225, D3462, and D7158 are permissible for use as established in the 2021 IRC Section R905.2.4. All asphalt singles are required to be nailed with a minimum of six (6) nails per shingle. Asphalt shingles may not be installed on roofs below 2/12 pitch. Double underlayment or ice and water barrier underlayment is required if asphalt shingles are installed on a roof pitch between 2/12 and 4/12.

8. Roof ventilation shall comply with 2021 IBC Section 1202.2 or 2021 IRC Section R806.2: 1 square foot of ventilation opening is required for every 150 square feet of attic space. If ventilation is provided at an approximate rate of 50/50 between upper roof and lower roof/soffits, 1 square foot of ventilation opening is required for every 300 square feet of attic space.

****Ridge venting cannot be used in combination with hat/turtle/turbine venting or gable-end venting and MUST be used in conjunction with soffit venting*****

9. **A final roof inspection is required to complete and close permits.** A ladder, extending 3 feet above the roof eave, shall be provided and secured at the time of inspection for all roof inspections, and permission to enter the yard is required if the inspector must pass through a fence or enter the rear yard of the property to access the ladder. Inspectors will not go through fences or enter rear yards without permission or when pets are present.

Section 2: Installation and inspection of all other roof coverings shall comply with the following:

1. Permits are required to be obtained prior to commencement of work and displayed in a location visible from the street and shall provide a complete description of work, including replacement or overlay of roof sheathing. Work initiated prior to obtaining a permit or without a valid City of Littleton contractor's license will result in the addition of an investigative fee equal to the cost of the permit and may result in issuance of a Stop Work order and/or municipal summons. Inspections will not be completed unless a valid permit is on site and in a visible, accessible location.

2. Roof decks with spaced or board sheathing that have **any** gap exceeding 1/2-inch shall be required to be overlaid with panel sheathing such as plywood or OSB that is a minimum of 3/8-inch in thickness. Amendment of existing permits is required if the need for installation of sheathing is discovered after permit issuance and sheathing installation was not previously indicated on the permit. Sheathing shall be nailed with nails spaced at a maximum of 6 inches on center at edges and 12 inches on center in rows not further than 24 inches apart. An inspection of sheathing fastening by Building Division staff is required prior to installation of roof underlayment and coverings.

3. Removal of existing roof coverings for replacement with new roof coverings or overlay of existing coverings with new layer of roof covering will require compliance with the 2021 International Energy Conservation Code. Typically, this

requires compliance with the tables in 2021 IECC sections 402 and C402, above deck (R-30) or attic/cavity (R-49).

****This does not apply to liquid or spray-applied roof coverings that are installed without the removal of any portion of the existing coverings. These coverings require a permit but are not subject to compliance with 2021 IECC Table 402.2****

4. All roof coverings and systems shall be installed in compliance with applicable codes and manufacturer's installation guidelines. Installation guidelines shall be submitted at time of permit application and be available on site at the time of all inspections. In the case of a conflict between manufacturer's installation guidelines and adopted codes and amendments, the most restrictive requirements shall apply.

5. In order to receive approval of a final inspection on commercial elastomeric or similar type roofing, a letter of inspection and approval from the manufacturer's agent stating that "the application of the roof covering at (project address) has been performed in accordance with the installation instructions for (roof material brand name) roof coverings" shall be provided. ****Warranty certificates completed by the contractor shall not substitute for the required letter outlined above.****

Section 3: Definition of roof repair

Roof repair, residential or commercial, shall be deemed to be the removal and/or replacement of one square (100 square feet) aggregate or less of existing roof covering in a period of one-year (365 days). Removal and/or replacement in excess of one square (100 square feet) aggregate in a period of one-year (365 days) shall be deemed to be roof replacement for the purposes of determining applicability of adopted code(s).

Section 4: Roof ventilation

Roof ventilation shall comply with the City of Littleton's adopted codes and roof covering manufacturer's specifications for required ventilation opening types, sizes, and locations. Enclosed attic spaces within main level front porches that are one-hundred forty nine square feet (149 sf) or less shall not be required to be ventilated. All other attic spaces, regardless of square footage, shall comply with ventilation requirements as set forth in the adopted codes or manufacturer's specifications, with the most restrictive requirement being required to be met.

For the purposes of calculation of roof ventilation opening area, standard static vents shall be deemed to be one square foot (1 sf) of opening.

Ridge venting shall comply with manufacturer's installation instructions. ****NOTE**** Ridge venting shall not be used in conjunction with vent types such as static vents, turbine vents, gable end vents, or without the presence of the required amount of soffit vent opening, unless specifically permitted by manufacturer's installation instructions. **Manufacturer's installation instructions typically require soffit venting to ensure the proper function of ridge venting.**

Enacted 5/20/2020
1st Revision 7/16/2020
2nd Revision 1/23/2023
3rd Revision 6/12/2023