

BUILDING DIVISION - POLICIES AND PROCEDURES

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Roofing and Re-Roof Covering Requirements

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This is a summary of City of Golden roofing requirements. This is not intended to be, nor is it, a complete listing of all roofing requirements. **The applicant is responsible for compliance to all required codes and ordinances.** If you belong to a Homeowners Association your roofing options may also be regulated by covenants, it is recommended that you contact your association prior to permit application. Special care should be taken when working on high or step roofs and when working around overhead power lines.

IMPORTANT NOTICE.

Permit holder is responsible for providing access to roof for both mid- roof and final roofing inspection. Your mid-roof inspection shall be considered ready when at least 25% and up to 65% of the new roof covering have been installed. (Ladder in place and secured to the roof with a minimum extension of three feet.) Failure to provide such access may result in a re-inspection fee. Roofs w/o a mid-inspection will be required to remove 2 squares (POLICY)

- **Basic Wind Speed** – 150mph Vult/116 mph V_{asd}, 3 second gust, exposure C (See item 4, Specific Asphalt Roof Covering Requirements, pg. 2)
- **Minimum Roof Snow Load** – 30 pounds per square foot
- **Ice Barrier** – It has been determined that the City of Golden has a history of ice forming at the eaves of roofing, therefore, an approved ice barrier is required on all new and re-roofing applications. Ice barrier needs to be placed not less than **2 feet inside of the heated wall.**
- **Drip Edge** - Drip edge as required by **IRC 2021 Section R905.2.8.5 and IBC 2021 Section 1507.2.9.3** is required for all new and re-roof applications. (Rakes and Eaves) A drip edge shall be provided at eaves and rake edges of shingle roofs. Adjacent segments of drip edge shall be overlapped not less than 2 inches. Drip edges shall extend not less than ¼ inch below the roof sheathing and **extend up back onto the roof deck not less than 2 inches.** Drip edges shall be mechanically fastened to the roof deck at not more than 12 inches o.c. with fasteners as specified in Section R905.2.5. Underlayment shall be installed over the drip edge along eaves and under the drip edge along rake edges.
- **Wood shakes and wood shingles** are required to have a **minimum of a Class A** fire rated roofing assembly.
- **All other roof coverings** are required to have a **minimum Class C** fire rating.
- **Roof/Attic Ventilation** – **Proper roof/attic ventilation shall be in accordance with section R806 2021 IRC and as required per Manufacturers Installation Instructions.**
- **Metal flashing**, which is damaged or rusted, must be replaced.
- **Siding/exterior wall finishes** on sidewalls above lower roofs should be kept **2" to 4" above the roof/wall junction.**
 - **Commercial Ballasted Roofs: Engineering evaluation required to evaluate loading conditions. Structural roof components shall be capable of supporting the roof-covering system and the material and equipment loads that will be encountered during installation of the system. IEBC 2021 Section 1501.2.1 Documentation shall be required at time of application submittal!**

Repair or complete removal and re-roof? If the repair of a roof covering exceeds 25% of the total roof covering of the structure, the entire existing roof covering must be replaced. (POLICY)

Specific Asphalt Shingle Roof Coverings Requirements:

1. A total of **1 overlay is permitted** over an existing asphalt or wood shingle roof. Strip shingles may not be installed over T-Loc shingles. **However, the total weight** of the existing plus the new roof covering material **shall not exceed** seven hundred and fifty (**750**) **pounds per square** (100 square feet) unless a structural analysis verifies the roof's capability of supporting the total loads applied. Wood shingles weigh approximately 300 pounds per square and the traditional 20 to 25 year T-Lock or 3-Tab weigh approximately 220 pounds per square. **The newer longer life shingles are substantially heavier and may not permit a total of 2 layers without approval from an engineer.**
2. **Asphalt shingle sheathing requirements: IRC 2021 R905.2.1 Asphalt shingles shall be fastened to solidly sheathed decks. Asphalt shingles** are not permitted to be installed over **1x board sheathing**. A minimum 3/8" OSB or ply is required prior to asphalt shingle placement. Asphalt shingles cut or otherwise modified, located at eaves, rakes, valleys, ridges, hips, or other areas, shall be properly fastened, adhered, or otherwise secured. **Exposed fasteners are not permitted** except at gables, ridges, hips, and at exposed flashing when necessary and when properly sealed.
3. Fasteners **must be corrosion resistant and long enough to penetrate through the total thickness of the roofing and** a minimum of 3/4" into the decking material. **Fasteners must not be over or under driven, they must set flush with shingle surface.** Staples are not permitted. Fasteners shall comply with ASTM F 1667.
4. **Due to the extreme wind exposure, shingles shall have a minimum weight of 300 pounds per square or have a minimum 30 year manufacturer's warranty.** Asphalt shingles shall be tested in accordance with ASTM D 7158.
5. **Asphalt shingles - Asphalt shingles shall be used only on roof slopes of two units vertical in 12 units horizontal (17-percent slope) or greater.**
6. **Asphalt strip shingles** shall be **self-sealing** or hand-sealed and shall be fastened with a minimum of **6 nails per shingle.**
7. **Asphalt strip shingles** require a **starter course** with a factory adhesive **at the eave line** or a manufactured starter **with a tar sealant.**
8. **Underlayment** of a minimum **Type 15 asphalt saturated felt**, installed on a dry roof deck, is required for complete tear-offs. The underlayment shall be attached with corrosion-resistant fasteners in a grid pattern of 12" between side laps with a 6" spacing at the side laps. **Underlayment shall be attached using metal or plastic cap nails.**
9. **Low Slope Roofs - For roof slopes from two units vertical in 12 units horizontal (17-percent slope) up to four units vertical in 12 units horizontal (33-percent slope), double underlayment application is required in accordance with Section R905.1.1. Starting at the eave apply 36-inch-wide sheet of ice barrier, then normal underlayment overlapping successive sheets 19 inches.**