

 <p>HAWTHORNE INCORPORATED 1922 CALIFORNIA "CITY OF GOOD NEIGHBORS"</p>	<p align="center"> CITY OF HAWTHORNE BUILDING AND SAFETY 4455 WEST 126TH STREET, HAWTHORNE, CA 90250 TELEPHONE: (310)349-2990 <u>Roof Replacements or Roof Recovers</u> </p>	<p align="center"> Info Bulletin BC 1512 June 07, 2023 </p>
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Scope

This bulletin is intended to expedite the permit process, yet to make the owners/contractors aware of their responsibilities and some of the items that the inspectors will be looking for within the field.

GENERAL

Applicable Codes. Roof replacements¹ and roof recovers² are required to comply with Chapter 9 of the *California Residential Code* [CRC] and Chapter 15 of the *California Building Code* [CBC] as well as the provisions of Sections 303 for asphalt kettles and 3318 for roofing operations of the *California Fire Code*.

In particular CRC 905 and CBC 1512 for reroofing, the energy provisions of the *California Energy Code* [CEnC], and other state regulations and local ordinances and rules. The installation of the roof coverings shall comply with the provisions of the applicable codes, other state regulations, as well as with local ordinances and rules.

Permit Requirements. Work on proposed roof replacements and roof recovers shall not proceed without a building permit required by Section 105 of the California Building Code. And where asphalt kettles, or other heat-producing systems or ignition sources are to be used, a permit from the fire department shall be obtained as required by Section 105.1.1 of the *California Fire Code*.

Asbestos. Emissions [SCAQMD Rule 1403. To limit asbestos emissions for building demolition and renovation activities, the owner/contractor shall comply with the provisions of SCAQMD Rule 1403.

Wood Shakes and Shingles [CBC 1505.5]. The installation of new wood shakes or shingles are prohibited with the City of Hawthorne [Hawthorne Municipal Code 15.05.030].

Recover or Replacement.

- ❖ Where a roof recover is proposed, the original roof covering shall be appropriate for a roof recover.
- ❖ The weight of the proposed installed roof shall match or be less than the weight of the installed existing roof covering. Where the installed weight of the proposed system is heavier, a plan reviewer/plan check engineer shall determine if an analysis by an engineer licensed in the State of California is required or not to determine the adequacy of the structure.

Details. Roofs shall be shown with code complying clearances from combustible products, roof drainage, roof flashings, and other such details.

GENERAL APPROPRIATENESS OF ROOF COVERING.

Besides the fire classification and energy requirements, roof coverings shall be appropriate for the deck construction that the roof covering is applied to, the minimum/maximum slope of the roof, and any other requirements or limitations that the manufacturer may have.

ROOF DECKS AND FIRE CLASSIFICATION

Roof Deck Requirements: General. Coordinate the roof deck requirements with the listing/manufacturer’s installation instructions for the fire-resistance rated assembly.

Deck Requirements for Concrete and Clay Tile Roofs. Provide solid decks where, and as required by the listing, and under concrete and clay tile roofs as required by Section 1507.3.1 of the City of Hawthorne Municipal Code.

Fire Classification [CBC 1505.1 or CRC R902.1; and City of Hawthorne Municipal Code 15.05.030]. Install fire classification Class A or B within the City of Hawthorne [Hawthorne Municipal Code 15.05.030].

¹ **Roof Replacements.** Where the existing roof is torn off and a new roof replaces the old.

² **Roof Recover.** A roof recover is where the existing roof covering remains and a 2nd layer is placed over the first.

ENERGY REQUIREMENTS³

Mandatory Requirements for ALL Roof Covering Projects

Unless otherwise noted below, the minimum 3-year (aged) solar reflectance/3-year (aged) thermal emittance for asphalt shingles shall be 0.08/0.75, respectively, and for all other roofing products 0.10/0.75 respectively [CEnC 110.8]. Alternatively, to the prescriptive reflectance/emittance values, the proposed roofing product may be justified using the aged SRI of the product and the values above, if approved by a plan reviewer/plan check engineer. US Department of Energy definition of "cool roofs" comply with the 'steep roof provisions herein noted, but for low slope roofs only the above.

Prescriptive Approach for Roof Replacements for One- and Two Family Residences [CEnC]. The recover/replacement of roof covering on one- and two-family residences shall comply with the provisions of CEnC-150.2(b)11.

If more than 50-percent of the roof is to be replaced the roof coverings shall comply as follows"

- ❖ **Steep Roofs⁴** [CEnC 150.2(b) 11.i]. Minimum aged solar reflectance = 0.20 and minimum aged thermal emittance = 0.75; or minimum aged SRI =16.
- ❖ **Low-Slope Roofs** [CEnC 150.2(b) 11.ii]. Minimum aged solar reflectance = 0.63 and minimum aged thermal emittance = 0.75; or minimum aged SRI =75.

Prescriptive Approach for Multi-Family Residences Altered [CEnC 180.2(b)1A]. The recover/replacement of roof covering on nonresidential or hotel/motel buildings shall comply with the provisions of CEnC 180.2(b)1A.

If more than 50 percent or more than 2,000 SF (whichever is less) of the roof area is being altered, than the altered areas shall comply with the following requirements:

- ❖ **Steep Roofs** [CEnC 180.2(b)1A.i]. Minimum aged solar reflectance = 0.20 and minimum aged thermal emittance = 0.75; or minimum aged SRI =16.
- ❖ **Low-Slope Roofs** [CEnC 180.2(b)1A.ii]. The minimum aged solar reflectance = 0.63 and minimum aged thermal emittance = 0.75; or minimum aged SRI =75; **and** the area of the roof recover or replacement shall be insulated with R-14 continuous insulation on the roof deck, or shall be shown with continuous insulation with an Umax of 0.039.

Prescriptive Approach for Non-Residential and Hotel/Motel Buildings [CEnC 140.3(a)1A and 141.0(b)2B]. The recover/replacement of roof covering on nonresidential or hotel/motel buildings shall comply with the provisions of CEnC 141.0(b)2B with roofing products complying with the provisions of CEnC 140.3(a)1A as referenced from CEnC 141.0(b)2B.

If more than 50 percent or more than 2,000 SF (whichever is less) of the roof area is being altered, than the altered areas shall comply with the following requirements:

- ❖ **Buildings other than Hotel/Motel Where Roof Covering is Over Guest Rooms**
 - **Steep Roofs** [CEnC 140.3(a)1A.i.b]. Minimum aged solar reflectance = 0.25 and minimum aged thermal emittance = 0.80; or minimum aged SRI =23.
 - **Low-Slope Roofs** [CEnC 140.3(a)1A.i.a and 141.0(b)2B.ii]. The minimum aged solar reflectance = 0.63 and minimum aged thermal emittance = 0.75; or minimum aged SRI =75; **and** the area of the roof recover or replacement shall be insulated with R-17 continuous insulation on the roof deck, or shall be shown with continuous insulation with an Umax of 0.047 with at least R-10 above deck.
- ❖ **Hotel/Motel Where Roof Covering is Over Guest Rooms**
 - **Steep Roofs** [CEnC 140.3(a)1A.i.b]. Minimum aged solar reflectance = 0.20 and minimum aged thermal emittance = 0.75; or minimum aged SRI =16.
 - **Low-Slope Roofs** [CEnC 140.3(a)1A.i.a and 141.0(b)2B.ii]. The minimum aged solar reflectance = 0.55 and minimum aged thermal emittance = 0.75; or minimum aged SRI =16; **and** the area of the roof recover or replacement shall be insulated with insulation as required for other than hotel/motel where roof covering is over guest rooms.
- ❖ **Low-Slope Roofs [CEnC 141.0(b)2B].**
- ❖ **The area of the roof recover or replacement shall be insulated with R-14 continuous insulation on the roof deck, or shall be shown with continuous insulation with an Umax of 0.039.**

DECLARATION OF ACKNOWLEDGEMENT AND AGREEMENT

Owner/Contractor. I am the owner of the property / the owners representative / the contractor acknowledge that I have read and understand the above. I also agree to install the proposed roof covering systems in compliance with the requirements above. I am also aware that I have the option of a plan review to verify if the proposed system complies with the provisions of the code, and by completing this agreement, I waive the plan review. I am also aware that if any of the above requirements are not met, the inspector may fail the installation.

Name (Print) _____

Signature _____

Date: _____

³ **Energy Alternatives.** Energy alternatives to the energy requirements in this bulletin may be applied only with a formal plan review of the proposed system.

⁴ **Steep and Low-Slope Roofs.** Steep roofs are those roofs with a pitch of 2:12 (16.7 percent slope) or greater. Low-slope roofs have a pitch less than 2:12.

INSPECTION REQUIREMENTS

1. Roof Replacements. Unless the work is phased, call for at least two inspections. One prior to covering of the roof and the final inspection after all work is done. For phased work, additional inspections may be necessary.
2. Have all repairs or sheathing finished before you call for inspection.
3. Be ready for inspection at 9:00 am, as you may be the inspector's first stop.
4. All roofing material **MUST BE** on site at the time of inspection—no exceptions.
5. If the job is not ready when the inspector arrives, he will NOT make a second visit that day.
6. If the job is not ready when the inspector arrives, you may be charged an \$86.00 reinspection fee.
7. All ladders must be securely fastened at the top for inspection. If not fastened no inspection will be done. The inspector will not wait for the ladder to be fastened.
8. All attic ventilation shall be installed at the time of roof sheathing inspections. Ventilation must comply with the code and shall be shown to provide adequate cross-ventilation, as well as the minimum requirements for net-free ventilation area.

DECLARATION OF ACKNOWLEDGEMENT AND AGREEMENT

Owner/Contractor. I am the owner of the property / the owners representative / the contractor acknowledge that I have read and understand the above. I also agree to the above inspection requirements. I am also aware that if any of the above requirements are not met, the inspector will not conduct the inspection and the inspection will fail.

Name (Print) _____

Signature _____

Date: _____