



# RE-ROOF REQUIREMENTS

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## **BUILDING DIVISION REQUIREMENTS**

A permit is required for all re-roof installations and repairs of more than 100 square feet.

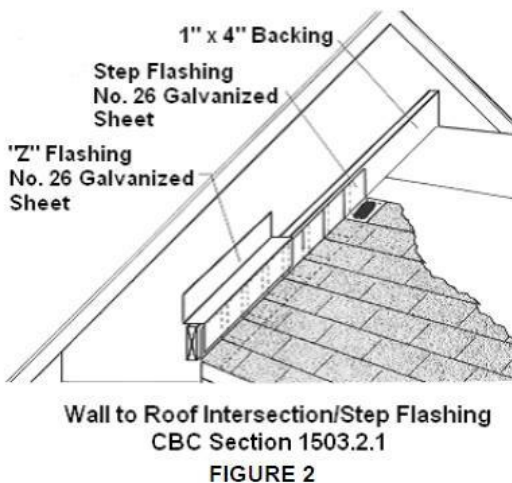
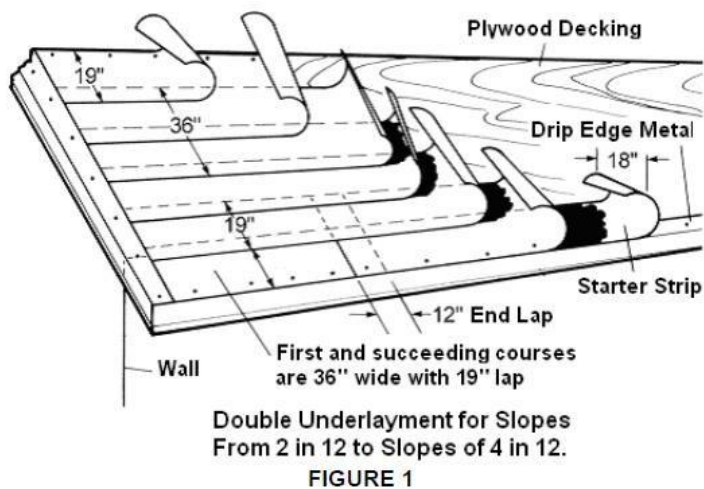
### **CODE REFERENCE:**

- 2013 California Building Code (CBC) Section 1507
- 2013 California Residential Code (CRC) Section R905

### **ROOF COVERINGS**

- **Deck Requirements** – Asphalt shingles shall be fastened to solidly sheathed decks (CBC §1507.2.1 & CRC §R905.2.1).
- **Slope** – Asphalt shingles shall only be used on roof slopes of 2 units vertical in 12 units horizontal (17% slope) or greater. For roof slopes from 2 units vertical in 12 units horizontal (17% slope) up to 4 units vertical in 12 units horizontal (33% slope), double underlayment application is required in accordance with CBC §1507.2.8 (CBC §1507.2.2 & CRC §R905.2.2).
- **Underlayment** – Unless otherwise noted, required underlayment shall conform to ASTM D 226, Type I, ASTM D 4869, Type I, or ASTM D 6757 (CBC §1507.2.3 & CRC §R905.2.3).
- **Asphalt Shingles** – Asphalt shingles shall have self-seal strips or be interlocking and comply with ASTM D 225 or ASTM D 3462. Asphalt shingle packaging shall bear labeling indicating compliance with ASTM D 3161 or a listing by an approved testing agency (CBC §1507.2.5 & CRC §R905.2.4).
- **Fasteners** – Fasteners for asphalt shingles shall be galvanized, stainless steel, aluminum or copper roofing nails, minimum 12 gage shank with a minimum 0.375 inch-diameter head, of a length to penetrate through the roofing materials and a minimum of 0.75 inch into the roof sheathing. Where the roof sheathing is less than 1.75 inch thick, the nails shall penetrate through the sheathing. Fasteners shall comply with ASTM F 1667 (CBC §1507.2.6 & CRC §R905.2.5).
- **Attachment** – Asphalt shingles shall have the minimum number of fasteners required by the manufacturer and CBC Section 1504.1. Asphalt shingles shall be secured to the roof with not less than 4 fasteners per strip shingle or 2 fasteners per individual shingles. Where the roof slope exceeds 20 units vertical in 12 units horizontal (166% slope), asphalt shingles shall be installed in accordance with the manufacturer's printed installation instructions for steep-slope roof applications (CBC §1507.2.7 & CRC §R905.2.6).
- **Underlayment Application** – For roof slopes from 2 units vertical in 12 units horizontal (17% slope) and up to 4 units vertical in 12 units horizontal (33% slope), underlayment shall be 2 layers applied in the following manner. Apply a minimum 19-inch-wide strip of underlayment felt parallel with and starting at the eaves, fastened sufficiently to hold in place. Starting at the eave, apply 36-inch-wide sheets of underlayment overlapping successive sheets 19 inches, by fastened

sufficiently to hold in place. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. For roof slopes of 4 units vertical in 12 units horizontal (33% slope) or greater, underlayment shall be one layer applied in the following manner. Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches, fastened sufficiently to hold in place. Distortions in the underlayment shall not interfere with the ability of the shingles to seal (CBC §1507.2.8 & CRC §R905.2.7).



- **Valleys** – Valley linings shall be installed in accordance with the manufacturer’s instructions before applying shingles. Valley linings of the following types shall be permitted: (CBC §1507.2.9.2 & CRC §R905.2.8.2).
  - For open valleys (valley lining exposed) lined with metal, the valley lining shall be at least 24 inches (610 mm) wide and of any of the corrosion-resistant metals in CBC Table 1507.2.9.2 & CRC Table R905.2.8.2.
  - For open valleys, valley lining of 2 plies of mineral-surfaced roll roofing complying with ASTM D 3909 or ASTM D 6380 shall be permitted. The bottom layer shall be 18 inches (457 mm) and the top layer a minimum of 36 inches (914 mm) wide.
  - For closed valleys (valleys covered with shingles), valley lining of one ply of smooth roll roofing complying with ASTM D 6380, Class S Type III, Class M Type II or ASTM D 3909 and at least

36 inches (914 mm) wide or types as described in Items 1 and 2 above shall be permitted. Specialty underlayment shall comply with ASTM D 1970.

**CBC Table 1507.2.9.2 & CRC Table R905.2.8.2  
VALLEY LINING MATERIAL**

Material	Minimum Thickness	Gage	Weight
Aluminum	0.024 in.	--	--
Cold-rolled copper	0.0216 in.	--	ASTM B 370, 16 oz. per square ft.
Copper	--	--	16 oz
Galvanized steel	0.0179 in.	26 (zinc-coated G90)	--
High-yield copper	0.0162 in.	--	ASTM B 370, 12 oz. per square ft.
Lead	--	--	2.5 pounds
Lead-coated copper	0.0216 in.	--	ASTM B 101, 16 oz. per square ft.
Lead-coated high-yield copper	0.0162 in.	--	ASTM B 101, 12 oz. per square ft.
Painted terne	--	--	20 pounds
Stainless steel	--	28	--
Zinc alloy	0.027 in.	--	--

- **Drip edge** – Provide drip edge at eaves and gables of shingle roofs. Overlap to be a minimum of 2 inches (51 mm). Eave drip edges shall extend 0.25 inch below sheathing and extend back on the roof a minimum of 2 inches (51 mm). Drip edge shall be mechanically fastened a maximum of 12 inches (305 mm) O.C. (CBC §1507.2.9.3 & CRC §R905.2.8.5).
- **Crickets and saddles** – A cricket or saddle shall be installed on the ridge side of any chimney or penetration greater than 30 inches wide as measured perpendicular to the slope. Cricket or saddle covering shall be sheet metal or of the same material as the roof covering (CBC §1507.2.9.4).

## **REROOFING**

Material and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of the 2013 CBC §1510. 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.

- **Recovering versus replacement** – New roof coverings shall not be installed without first removing all existing layers of roof coverings where any of the following conditions occur (CBC §1510.3 & CRC §R907.3):
  1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
  2. Where the existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.
  3. Where the existing roof has two (2) or more applications of any type of roof covering.

## PERMIT PROCESS

Prior to submittal for a building permit, contact the Planning Division to determine if a separate permit is required.

## Building Permit Review

Building permits for re-roofs are available at the Building Services Division 8am-4pm Monday to Friday.

## Inspections

All re-roofs require the following two inspections:

- An in-progress inspection is required at the following stage based on the new roof material:
  - Composition - All plywood nailed down, 1/2 felted with valleys felted and flashing over felt. Courses started. Drip edge at all rakes installed over felt.
  - Tar and Gravel/Foam - All areas cleaned of debris and new materials on site for inspection.
  - Tile - Have furring members in place with approved fire blocking.
  - Shake - Have rating of shakes identified, courses started, and felt and flashing in place.
- The final inspection is required after all of the re-roof work is complete. The job card shall be posted on-site and an extension ladder that extends a minimum of 3' beyond the roof eave shall be made available for the inspector. The following items will be checked at the final inspection:
  - Spark arrester is installed
  - Overflow drains are cleaned
  - Skylights are secured
  - All flues are to be extended and secured
  - Any roof equipment and/or piping is secured
  - All exposed nails are protected and caulked with silicon
  - All exposed wood, roof jacks, and metal flashing or edging are painted
- All work exceeding \$1,000 requires the installation of listed/approved smoke alarms in all bedrooms, adjoining hall, and at each level per the CA Residential Code. A *carbon monoxide alarm* is required, when there is an attached garage or fuel burning appliance, in the adjoining hallway(s) of the bedrooms and on every level of a dwelling unit including basement. See *City of East Palo Alto Smoke | Carbon Monoxide Alarms Owner Certificate of Compliance and Example of Location for Smoke & Carbon Monoxide Alarm Handout* for additional information. The affidavit shall be submitted prior to the final inspection.

## Building Permit Application Requirements

- A complete Building Permit Application- available at the Building Services Division or at [www.cityofepa.org](http://www.cityofepa.org) (*only one copy of this item needed*)
- An approval letter from the Homeowner's Association (if applicable).
- Two (2) copies of the manufacturer's specifications.