



LIVE OAK BUILDING INSPECTION DEPARTMENT  
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Kenneth W. Steiner Building Official / Inspector

## Roof Standards

### Definitions

**Eaves:** The lower edge of the roof, which runs parallel with the wall.

**Rake:** The edge of the roof that runs from the eaves to the peak or highest point of the roof.

**Roof Edge:** A preformed metal edging, this is installed on roof edge to extend the drip line.

**Roof Pitch:** Roof pitch is the amount the roof rises from horizontal in a 12-inch distance; usually expressed as a fraction. Example: 4/12 (common in this area).

**Square:** A roofing term that means 100 square feet of roofing. Most asphalt shingles are packaged so that three packages, called bundles equal one square.

**Sheathing:** The sheet material over the rafters or trusses, which forms the deck of the roof. Usually 4 foot by 8 foot sheets of plywood or oriented strand board.

**Solid Sheathing:** Firm, strong, stable not spongy, dense

**Underlayment:** Felt material, which is placed over the sheathing and under the shingles.

**Spaced Sheathing:** Boards applied with spaces between boards, which formed the decking under wood shingles. Not acceptable for asphalt shingles.

**Soffit:** Underside of the part of the roof that extends past the wall line.

### Overlay or Tear-off?

- The reroofing of a structure having asphalt shingles may be accomplished by either **overlay**; adding an additional layer of asphalt shingles (one overlay is permitted over an original shingled roof) or **tear-off**; completely removing the existing shingles, underlayment, flashing, etc., and then roofing as if new construction.

**To assist in making the decision whether to overlay or tear-off, consider the following:**

- Check the framing beneath. It must be adequate to carry the additional weight of new materials plus the weight of roofers and their equipment.
- Check the condition of the existing deck sheathing. Asphalt shingles shall be fastened to solidly sheathed decks.
- Check the condition of the roofing surface. If it is warped, curled, or badly weathered to the point where providing a level surface for the new material will be difficult, it should be removed. If the surface is defective to the point where it will not serve as underlayment, it should be removed.

### **Sheathing requirements**

- Asphalt shingles shall be fastened to solidly sheathed decks. Roof sheathing shall be checked prior to reroofing and repaired or replaced if rotted or unsound. Replacement sheathing shall conform to the requirements of the Building Code. For sheathing 7/16 thick sheathing is the minimum that will meet the requirements of the Building Code. (*OSB or plywood*).

### **Roof Pitch**

- Asphalt shingles shall in no case to be used on roofs with less than 2/12 pitch.

### **Underlayment**

#### **Roof Pitches from 2/12 to less than 4/12**

- Two layers of 15# felt applied shingle fashion. Starting with an 18-inch wide sheet and a 36-inch wide sheet over it at the eaves, each subsequent sheet shall be lapped 19 inches horizontally.

#### **Roof Pitches of 4/12 and over:**

- One layer of 15 pound felt lapped 2 inches horizontally and 4 inches vertically.

### **Valley Lining**

- For closed alleys (valleys covered with shingles), need to be lined with one of the following:

- 1. One layer of one ply smooth roll roofing at least 36" wide*
- 2. One layer of wintergaurd 36" wide*
- 3. One layer of 24" valley flashing corrosion-resistant metal*

### **Flashing**

- Intersections of roof surfaces with vertical walls, chimneys, and projections through the roof create potential areas of leakage that must be protected by corrosion resistant metal flashings.
- To maintain water resistance, it is necessary to apply flashings so that differential movements caused by settling, etc., are accommodated. Secure base or step flashing to the roof deck (not to the wall) and cap flashing to the masonry or vertical wall. Exterior wall siding may serve as cap flashing. Do not fasten the cap flashing or siding to the base or step flashing.
- Each metal flashing piece (commonly call tin shingles) is to be placed slightly up the roof from where the exposed edge of the next overlapping shingle will be located, so as to hide the flashing.
- These flashings need to be installed as each course of asphalt shingles is installed. If you have doubts about correct installation seek information. These flashings will not be effective if installed incorrectly and are very difficult to change once installed incorrectly.
- Roof Edge is required on both eave and rake edges. Be careful to install rake piece on top of eave piece to enable it to shed water.

### **Ventilation**

- The total net free ventilating area shall not be less than 1 to 150 of the space to be ventilated except that the total area is permitted to be reduced to 1 to 300, provided at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet above eave or cornice vents with the balance of the ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilation may be reduced to 1 to 300 when a vapor barrier having a transmission rate not exceeding 1 perm is installed on the warm side of the ceiling.
- Tear-offs and overlays with inadequate ventilation shall be upgraded to meet the requirements.

### **Fasteners**

- Asphalt shingles shall have the minimum number of fasteners required by the manufacturer. For normal application, asphalt shingles shall be secured to the roof with not less than four nails per strip shingle or two fasteners per individual shingle. Nails shall not be less than 12 gauge with 3/8-inch minimum diameter head.
- Nails shall be of sufficient length to penetrate through roofing material and at least 3/4 inch into roof sheathing or through the thickness of the roof sheathing, whichever is less.

### **Roofing Contractors**

- Some guidelines may be helpful in working with a roofing contractor:
- In Live Oak roofing contractors are required to be licensed and insured. Ask the contractor for their Live Oak contractor's license. You should call Building Inspection Department to determine if a contractor is licensed and insured.
- Do not obtain the permit for a contractor doing work for you. This would make you the responsible party for the project meeting the code instead of the contractor. It would seriously handicap the Building Inspection Department from regulating the work done by the contractor.
- A reliable contractor should be able to provide you with current references you may contact to determine if previous customers were satisfied.
- You may call Building Inspections Department to determine the current projects a contractor have obtained permits to perform the work.
- Check at start of work to determine if contractor has obtained permit.
- Inquire of contractor if they would be willing to include in contract that final payment will not be made to contractor until project passes final inspection by the Building Inspection Department.

### **Building Permits**

- Homeowners doing their own roofing are required to obtain a building permit.
- To obtain a permit you need to know the address, the quantity of squares of roofing, whether it is a tear-off or overlay, a value of the project materials and whether sheathing will be replaced.

### **Inspections**

For a roofing project, the only inspection required is a final inspection when the work is completed.

***\*This handout was developed by the City Of Live Oak under the current adopted Residential Code as a basic plan to help in the building process. It is not intended to cover all circumstances. Check with the City Of Live Oak Building department for additional requirements. Department hours are Monday thru Friday 0800 to 1700.***

Under section R104.1 the Building Official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. The adopt policies and procedures is in the above Roofing Guidelines.