Oregon Roof Consulting and Inspection

No-Nonsense Roofing Advice for Property Owners: Affordable ~ Thorough ~ Versatile ~ Capable

Serving the Portland Metro area and all of Oregon: (503) 654-4612

Oregon CCB: 199121 ~ WA Lic: OREGORC871MR

PO Box 220190, Milwaukie, OR 97222

Resume' ~ Track Record ~ Experience ~ Qualifications ~ History

Please note : I have 44 years of legitimate verifiable experience as a laborer / grunt / gopher for my brother's roofing business in the 60's, the better part of 3 decades as a roofing contractor, 6 years as an estimator / project manager for 2 large roofing companies and am now nearing the end of my 10th year as the owner / operator of Oregon Roof Consulting and Inspection. I have personally installed over 1,000 roofs and have done at least 14,000 roofing estimates back in the roofing days. Oregon Roof Consulting has participated in 5 courtroom hearings and 16 arbitration hearings in Oregon and Washington and 19 on site CCB mediation meetings in Oregon - all as an expert witness, so, we are somewhat familiar with the roofing trade.

I have done work for but not limited to : Homeowners; Businesses and corporations of all sizes; Insurance companies; Banks; Churches; Relocation companies; Roofing contractors; Investment groups; HOA's; Apartment complexes of all sizes; The State of Oregon; Multiple school districts including West Linn; David Douglas; and every elementary, middle, and high school in both Hood River and Wasco (The Dalles) counties; United States Coast Guard in Astoria; etc. I have done jobs all over Oregon and Washington; All over the San Francisco Bay Area including San Francisco, Oakland, Napa, Richmond, Alameda, Fremont, Pleasanton, Berkeley, Fresno, Sacramento and Reno Nevada. We have also helped with two shingle roofing projects on the remote South Pacific island of Rarotonga (Cook Islands).This is all on my website. See www.oregonroofconsulting.com

Thank you, Owner of Oregon Roof Consulting & Inspection

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No-Nonsense Roofing Advice for Property Owners

- Affordable ~ Thorough ~ Versatile ~ Capable
- Roofing in Oregon Since 1973
- Project Management & Monitoring
- Inspections ~ Certifications ~ Owner Advocacy

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Roof Inspection for :

Job Address : Yamhill, Oregon 97148

I inspected this roof on November 28th 2023. I met the owner. I was on site for 2 hours. The roof is a new Certainteed 'Landmark' shingle in the black color. One layer over plywood. Separate photo emails will be sent. Each will be numbered to correspond to the numbered items on the summary report. The following items should be noted :

1. There are some positives about this roof : quality shingles, metal not plastic vents, metal valleys, rake edge detail correct, proper underlayment for the low slope 2/12 mud room section.
2. It would be wise to install sheet metal caps on the 2 beam ends at the front porch.
3. The first row of shingles in back should be continuous. It is instead divided into 3 parts with lapping joints at the 2 sides of the dormer. There is no starter course in the middle section.
4. The pipe flashing for the 4" plumbing vent pipe on the upper back dormer is an entry level 'no-caulk' type. The rubber collar on this will fail long before the shingles do. They (do) make long lasting pipe jacks. Best fix here is just buy a 4" collar at any roofing distributor (not Lowe's or Home Depot) and slide the collar down the pipe on to existing collar. **Certainteed wants flanges to be double sealed. See attached Certainteed page. A piece of ice & water shield was put here but it is not secured to the flange.
5. The siding in back was trimmed on both dormer walls and the head wall. These cuts are irregular and unsightly. A long 1X3 or 1X4 should have been tacked on these walls to be used as a guide.
6. The step flashings / tin shingles at the 2 back dormer sidewalls doesn't look good. The bends are not sharp clean 90 degree bends, instead the bends are irregular with many rounded. Some are not tight to the deck. Some are not tight to the walls.
7. The eave / drip edge flashing in back does not lead into the gutter. Instead of a 1X3 flashing a 2X3 should have been used.
8. All shingles have a factory applied sun activated sealant. A few hot days are required to activate the sealant. These are not yet bonded so it was easy to lift

shingles to check for proper fastening. I looked at about 240 nails at 8 different areas. About 90% of viewed nails were over driven. Many driven all the way through. Some nails were at an angle. I found places at the ends of shingles with no nails. All shingle manufacturers including Certainteed have essentially the same nailing requirements. These specs are quite specific. The owner called the Certainteed Technical Services folks and they told her that a high % of over driven nails voids their wind warranty. The installers could easily see that the nailing was bad and did nothing about it so either they are not aware of nailing standards or they don't care or both. This is one of the worst nailing jobs I have seen. **See attached Certainteed sheets.

9. Short nails were used on the front porch roof. The roofers' intention was to not have these nails blow through the underside of the plywood which would be unsightly. While these intentions were good the nailing is very bad. Firstly, the nails should penetrate at least 3/8" into the deck. Certainteed allows shorter nails to be used however to compensate for the minimal penetration Certainteed **requires** 6 nails per shingle instead of the typical 4 nails per full shingle. This was not done. These shingles have 4 nails. Compounding this issue is that nearly all nails are over driven with many blown all the way through the shingles. **See attached Certainteed sheet.

Conclusion : I don't say this often but in my opinion this roof should be redone. Of course I can't tell anyone what to do as I am just the messenger.

It is any Contractor's responsibility, obligation, and requirement to 1) Know how a roof system should be installed. 2) Install that roof system correctly.

** The Oregon Residential Specialty Code R102.7.1 : *'Additions, alterations or repairs (excluding ordinary repairs) to any structure shall conform to the requirements for a new structure without requiring an existing structure to comply with all of the requirements of this code, unless otherwise stated. Additions, alterations or repairs* ***shall not cause an existing structure to become unsafe or adversely affect the performance of the building.....'.*** R905.1 : *'Roof coverings shall be applied in accordance with the applicable provisions of this section and manufacturers installation instructions'.* R903.1 : *' Roof Assemblies shall be designed and installed in accordance with this code and the approved manufacturers instructions such that* ***the roof assembly shall serve to protect the building or structure*** *'.* R105.2 : *'Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in a manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction'. ** A permit may or may not be required in your area. To inquire call local building officials.*

Thank you, Owner of Oregon Roof Consulting & Inspection

This document carries no warranty or guarantee. It is an opinion based on industry standards, manufacturers specifications, local codes and my experience

Here Are Some Tips

In a roof-over, you need to expose step-flashing before installing the second layer of shingles. If the second layer is just cut around the object, and the apron flashing is not brought out on top of the new shingles, then the original step flashing drains onto the apron and down between the layers. After several years, the deck is saturated and rotting. Opening up the flashing the right way is a "pain," but it must be done. Thanks to Tim Mosher from Lima, OH. Tim recently repaired the bottom corners of 8 dormers on his parent's roof where the flashing was "shingled-over"... no wonder he sent us this tip!

5. Apply an additional row of shingles over the metal flashing strip, trimmed to match the vertical width of the metal flashing strip on the shingle surface. Fasten shingles with face nails sealed over with a small dab of roofing cement.
6. Next, if there is siding, bring it down over the vertical part of the step flashing to serve as cap flashing. Do not nail the siding into the vertical flashing.

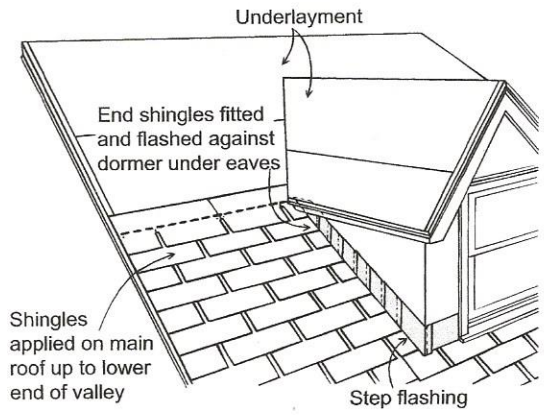


Figure 6-4: Front/side wall flashing.

7. If the vertical front wall meets a sidewall, as in dormer construction, cut the front flashing so that it extends at least 7" around the corner. Then continue up the sidewall with step flashing as described earlier. A good quality caulk, or asphalt roofing cement, may be useful to fully seal behind corner joints, if they will not be soldered.

SOIL STACKS AND VENT PIPES

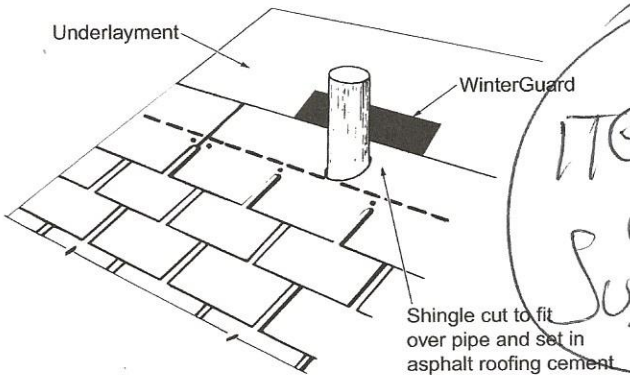


Figure 6-5: Cutting shingle to fit around vent pipe.

Practically all homes have circular vent pipes or ventilators projecting through the roof. Before installing the flashing, bring the shingles up to the vent pipe. Then cut a hole in the shingle that will go over the pipe and install the shingle, setting it in asphalt plastic cement. Next, place a preformed flashing flange, sized to fit snugly over the pipe, over the vent pipe and set it in asphalt roofing cement. Be sure the flange is seated squarely on the roof.

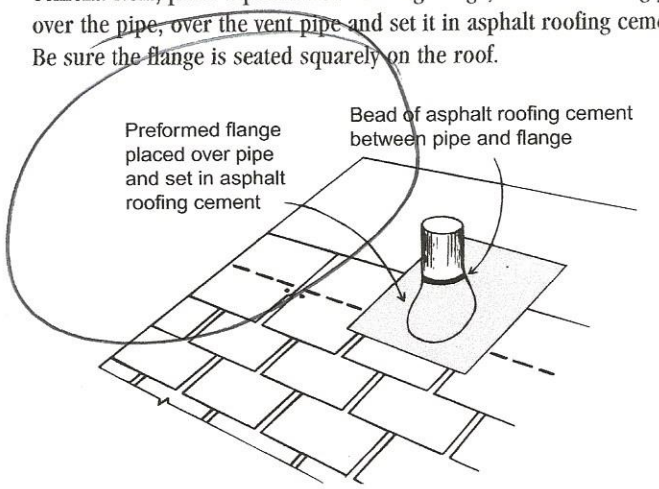


Figure 6-6: Placement of flange over vent pipe.

After the flashing is in place, continue applying the shingles. Cut the shingles in the succeeding courses to fit around the pipe, and embed them in asphalt roofing cement where they overlap the flashing flange. The completed installation should appear as shown in *Figure 6-7*, with the lower part of the flange overlapping the lower shingles, and the side and upper shingles overlapping the flange.

Follow the same procedure where a ventilator or exhaust stack is located. If the ventilator, exhaust stack, or soil pipe is near a ridge, bring the shingles up to the protrusion from both sides and bend the flashing flange over the ridge to lie in both roof planes, overlapping the roof shingles at all points. Ridge shingles are then positioned to cover the flange. Embed the ridge shingles in asphalt roofing cement where they overlap the flange.

Flexible neoprene boots are also commonly used to flash around vent pipes.

ITEM 4 ON SUMMARY

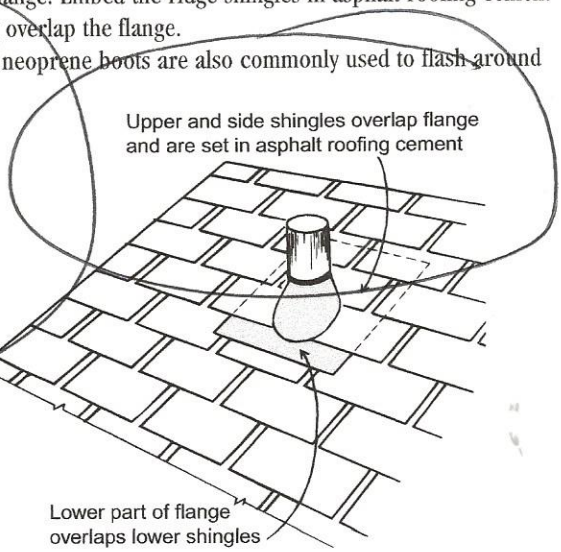


Figure 6-7: Applying shingles around flange.

Correct Fastening 8

ITEM #8/9 ON SUMMARY ↓ ↓

YOUR OBJECTIVE:
To learn CertainTeed's recommended methods for fastening shingles.

GENERAL FASTENING GUIDELINES

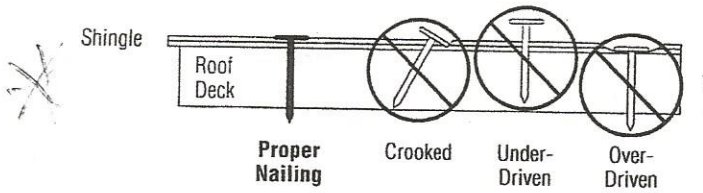


Figure 8-1: Fastening three-tab, strip-type shingles.

- Proper placement of fasteners is important for shingle performance and warranty protection. Ideally, placement of fasteners should be as specified according to the precise locations shown for each shingle. However, in practice some variation (dimensional tolerance) is acceptable.
- ★ Nails are strongly recommended instead of staples. *(Nails **MUST** be used with LandMark® TL, Presidential®, Presidential® TL, Arcadia Shake™, Carriage House®, Belmont™ and Grand Manor® shingles.)*
- Nailing locations vary by shingle style and by roof slope. It is critical to fasten the shingles in the proper locations in order to achieve designed performance. Improperly fastened shingles may blow off or slip out of place. The use of asphalt roofing cement in small quarter-size dabs to hold the shingle down is required on most shingles when applied to steep slopes exceeding 21/12 (60 degrees). Consult individual shingle application instructions for details on the above, including fastening points.
- Fastening a heavier and thicker premium shingle requires longer nails.
- Nails with a barbed or rough shank are recommended. Smooth pneumatic nails are also acceptable.
- Nail shanks must be either 11- or 12-gauge.
- Nail head diameter must be at least 3/8".
- Nail shanks must be long enough to penetrate the roofing and then go 3/4" into solid wood, plywood or non-veneer wood decking, or through the thickness of the decking, whichever is less.
- Be sure fasteners are driven straight, with nail heads flush with the shingle surface and never cutting into the shingle (*Figure 8-1*).
- All nails must be corrosion resistant; for example, double-dipped galvanized steel, aluminum, copper, or stainless steel.
- To prevent shingle distortion, do not attempt to realign a shingle by shifting the free end after two fasteners are in place.
- Fasteners should not go into, above, or between the self-sealing strips (except for Highland Slate). If they do, the shingles may not seal properly and will be more likely to blow off.
- If a nail is underdriven, be sure that it is hammered down **flush**.
- Seal overdriven nails with asphalt roofing cement and install another nail nearby.
- Fasteners must not be exposed; i.e., visible on the finished roof.

ARE STAPLES ACCEPTABLE?

Both ARMA and CertainTeed **strongly recommend** that properly driven and applied roofing nails be used as the fastening system for asphalt shingles. Staples can perform acceptably if properly applied, but proper alignment and application is more difficult with staples than with nails, making shingle damage and blow-offs more likely.

★ (Nails **MUST** be used for Landmark TL, Presidential, Presidential T/L, Arcadia Shake, Carriage House, Belmont and Grand Manor shingles, plus in high-wind areas and to qualify for an increased wind warranty if available.

Caution: Check your local Building Code for applicable fastener requirements.

Here Are Some Tips...

After applying the last cap on a ridge, put a tab of asphalt roofing cement on the nail heads and sprinkle some loose granules over the cement. When done, you can't see the spots where you face-nailed. (Thanks to John McAvoy Jr. from Troy, NY.)

Avoid driving nails through metal flashing that covers two sides of adjoining underlaying materials, such as different pieces of roof decking or between vertical and horizontal planes. It is very difficult to permanently s the punctures in these situations and, over time, expansion and contraction of the flashing can cause the hol to enlarge and/or the flashing to buckle.

OPEN SOFFITS

When installing CertainTeed shingles on roof decking that spans an open overhanging soffit area and fasteners protruding through the underside of the deck would be aesthetically objectionable. CertainTeed allows the use of shorter fasteners that do not penetrate through the deck. This exception to the CertainTeed fastener requirements applies only in the CertainTeed North West and South West regions (ID, OR, WA, NM, WY, CA, AK, HI, UT, AZ, NV, CO).

The CertainTeed Limited Warranty covering its shingles will remain in force if the shingles have been installed on an acceptable deck with appropriate fasteners, even if they do not penetrate to the full depth specified in the shingle's application instructions, if the following conditions are met:

Important: Two extra fasteners per full shingle are required and the fasteners must penetrate into the roof deck at least 3/8" and seat firmly against the shingle surface. Refer to the steep slope application instructions for nail placement (no asphalt roofing cement is required). This exception applies **only** to those areas of the roof deck that spans an open overhanging soffit.

Fasteners used in all other areas of the roof deck must be applied according to CertainTeed application instructions and fastener requirements. In addition, CertainTeed shall not have any liability or responsibility for (a) Damage to the shingles caused by fasteners that back out of the roof deck or are not applied properly, or (b) Nail-pops or blow-offs resulting from fasteners that are under-driven (standing up).

Caution: Check your local Building Code for applicable fastener requirements.

Note: Conduct a "field test" to assure that the minimum penetration is met or exceeded. The best fastening performance results when fastener points just barely splinter the underside of the deck.

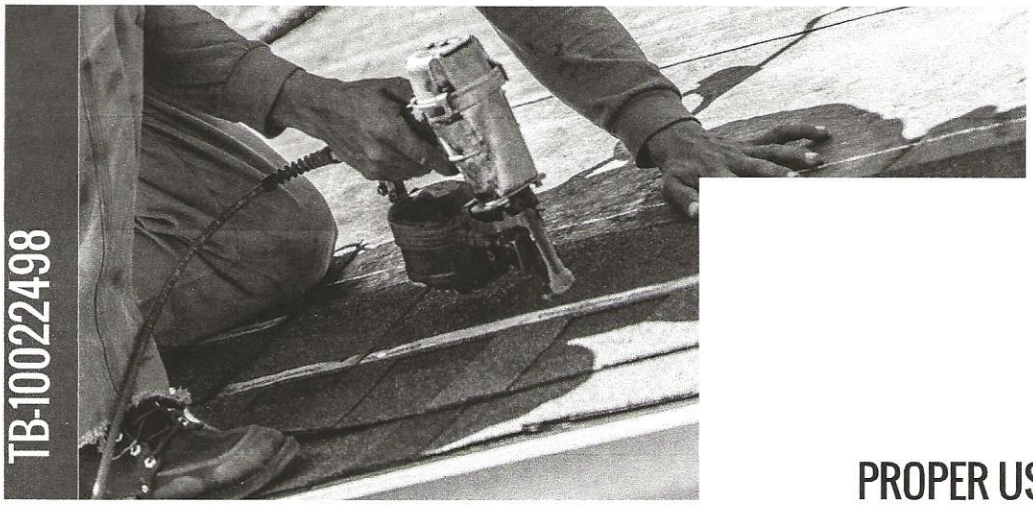
FASTENING RIDGES AND HIPS

- When capping ridges and hips, be sure fasteners are long en to penetrate and hold the deck properly. Installing caps req longer fasteners than those used to apply field shingles.
- When installing the last cap in a row of hip or ridge shingles face-nail this piece and protect the nail heads with nickel-si spots of asphalt roofing cement.

FASTENING STARTER SHINGLES

When installing starter shingles it is important to position faste the lowest possible location along the eave and ensure that the penetrate into the roof deck.

ITEM # 9
ON SUMMARY



TB-10022498

TECHNICAL BULLETIN

PROPER USE OF PNEUMATIC COIL NAILERS

SUPERSEDES PREVIOUS BULLETINS

Issue Description:

The proper use of pneumatic coil nailers for the installation of asphalt shingles.

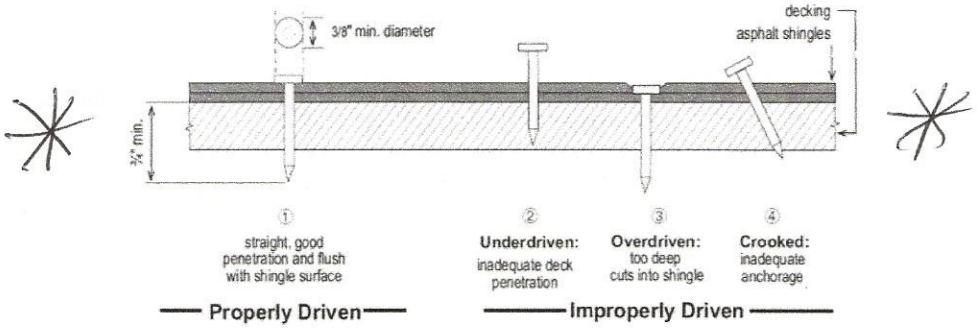
Recommendations:

Proper setup and use of pneumatic coil nailers is critical for correct installation of Owens Corning® asphalt shingles. Improper use of pneumatic coil nailers may lead to shingle damage and/or shingle failures during a high-wind event. Ensuring proper nail gun setup will:

- Prevent over-driving the nails, which can cause the nail head to blow through the shingle.
- Prevent under-driving the nails, which can prevent shingles from laying flat and sealing properly.

Key Considerations:

- Use regulated compressed air and never apply more air pressure than is necessary to properly drive the fasteners.
- Most pneumatic coil nailers operate at optimum efficiency when the pressure is set between 80 and 95 psi.
- Most coil nailers are equipped with a depth adjustment knob. Adjust the settings for the nail heads to be driven flush.
- The startup and cutout pressures on the compressor should be set to maintain optimum operating pressure in the compressor tank at all times.
- Air hose length and diameter should be considered when setting psi at regulator.
- Operating more than one coil nail gun from a single compressor may affect how well the fasteners penetrate the shingles.
- Use corrosion resistant 11 or 12-gauge nails with a minimum 3/8-inch diameter heads, complying with ASTM F1667.
- Unusually cold or hot temperatures may require additional tuning of the compressor for optimum nail driving performance.
- Always read and be familiar with the operating instructions for the compressor and nail gun.
- When using pneumatic coil nailers, **always ensure that the nail is driven flat and flush with the shingle.**
- **Any shingle into which an overdriven fastener has been installed** must be repaired by either replacing the shingle or covering the fastener with asphalt roofing cement and installing an additional fastener within 1-inch of the overdriven fastener.



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