















10 steps (technical)

10 Steps to Performing a Roof Inspection

- 1. Check the roof covering**
- 2. Check the fasteners**
- 3. Check the deck sheathing**
- 4. Check the slope and underlayment**
- 5. Check the ice barrier**
- 6. Check the drip edge**
- 7. Check for an offset pattern**
- 8. Check the roof valley flashing**
- 9. Check the nail penetration into the deck sheathing**
- 10. Check the flashing areas.**

Standards of Practice
is a minimum.

STEP #1

Check the roof covering.

Determine if the roof covering is designed to provide a weather barrier.

The purpose of the roof covering is to protect the structure underneath from water intrusion and water damage.

STEP #1

Check the roof covering.

Building codes don't address the many details required for a complete and proper installation of the many available roofing products. Refer to "according to manufacturer's instructions."

Best practice: A second layer of roof covering (or a new roof covering) should NOT be installed without first removing the existing roof covering.



IMPAC PROTECTION

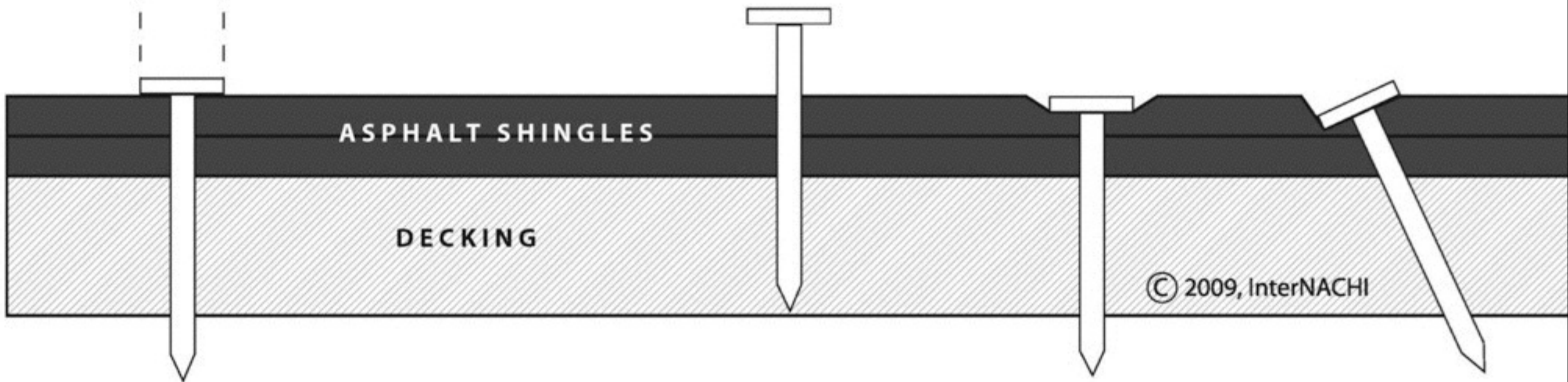
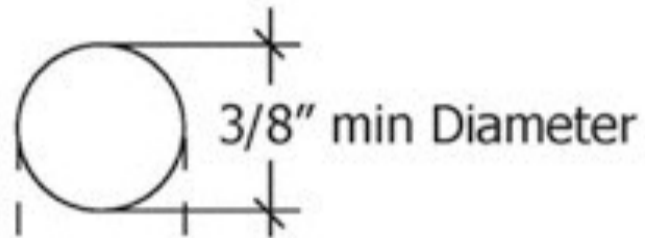
STEP #2

Check the fasteners.

There is good fastening and bad fastening.

During a typical home inspection, checking the fasteners from the roof surface will be almost impossible. However, there are a few things that every inspector should know:

STEP #2



1

Straight, good penetration and flush with shingle surface

2

Underdriven: inadequate deck penetration

3

Overdriven: too deep cuts into shingles

4

Crooked: inadequate anchorage

— Properly Driven —

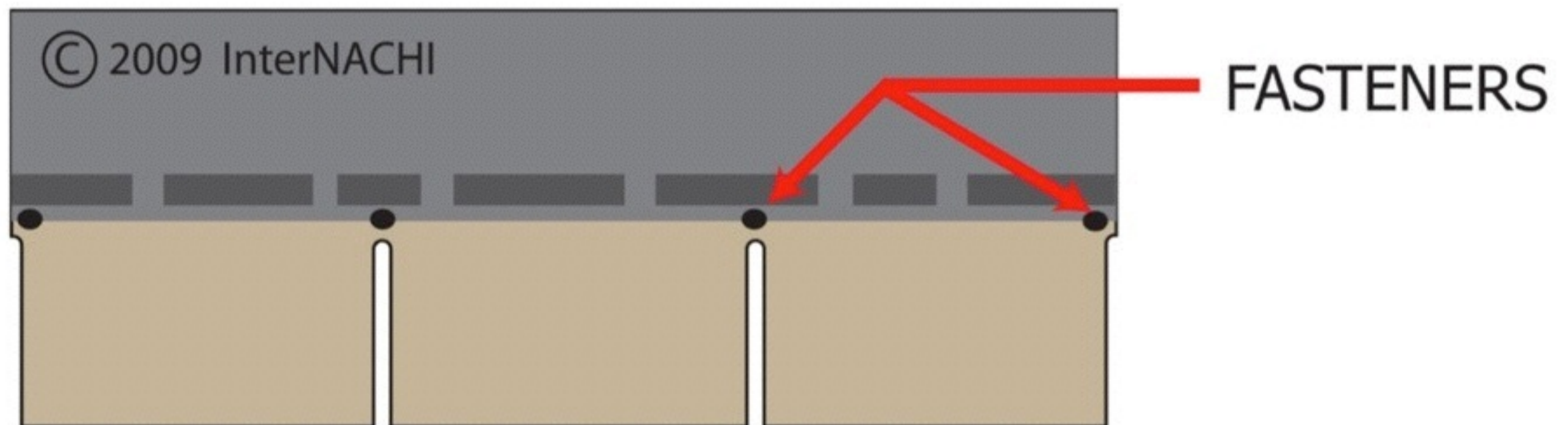
— Improperly Driven —





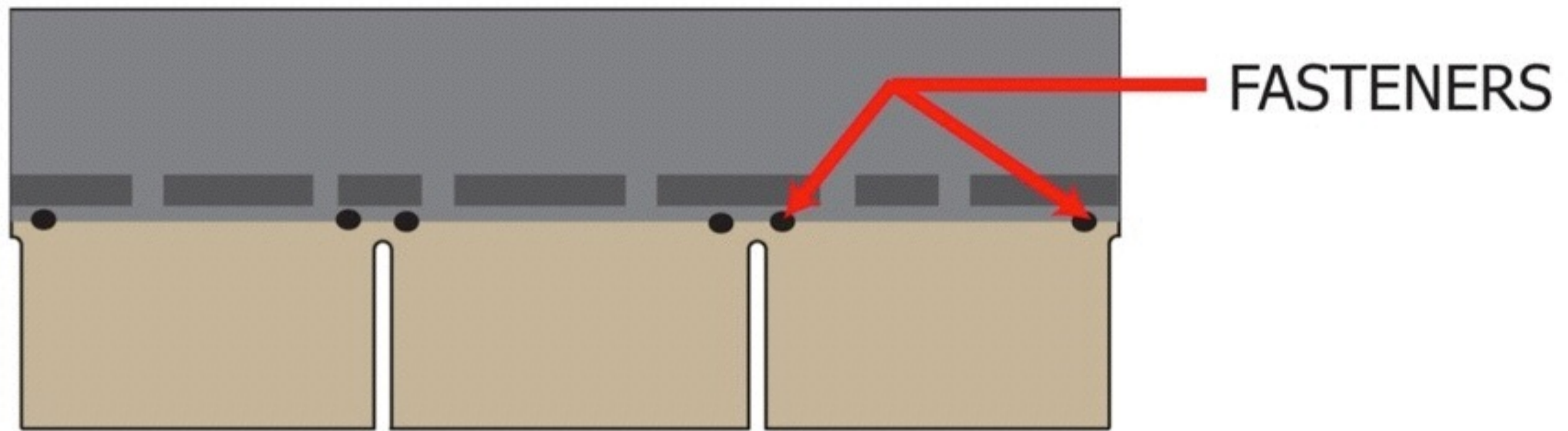
STEP #2

FASTENERS PER SHINGLE



MINIMUM 4 FASTENERS PER SHINGLE

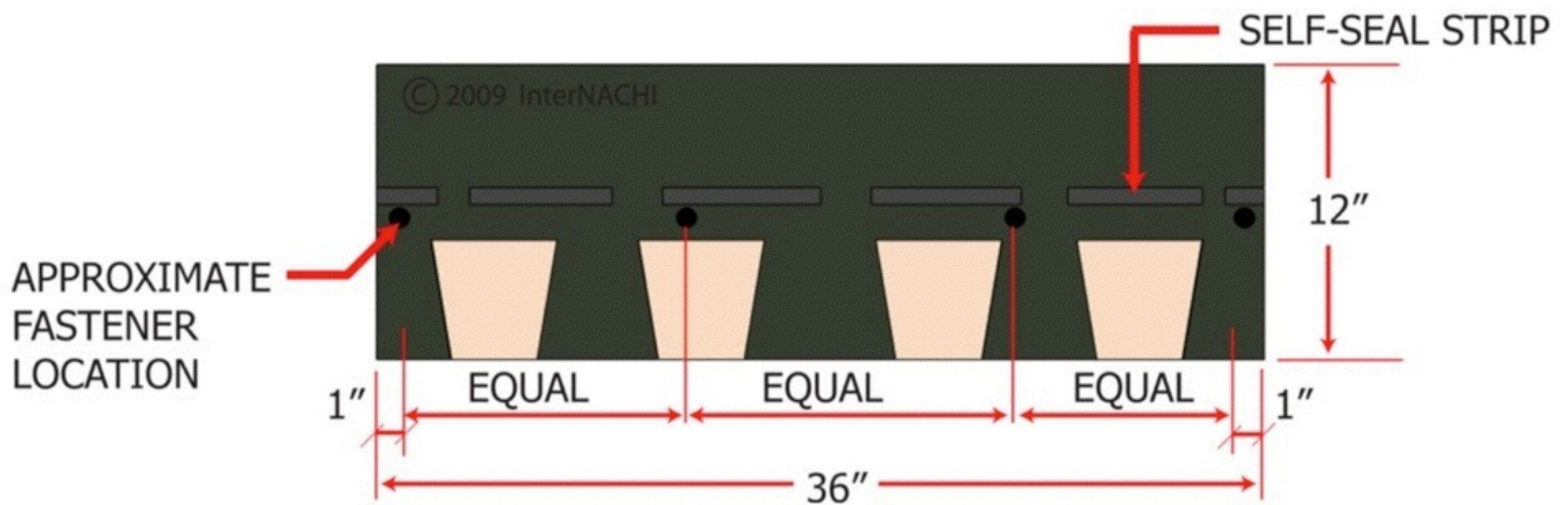
STEP #2



MINIMUM 6 FASTENERS PER SHINGLE
USED IN HIGH-WIND AREAS

STEP #2

LAMINATED STRIP SHINGLES



STEP #2

Fasteners should never be visibly exposed or weathered. They should NOT appear in the 5-inch area of exposure of the shingle.

Report as a “potential water entry point” and recommend “correction and further evaluation.”



STEP #3

Determine if the roof is solidly sheathed.

This is a little difficult, and can get technical and exhaustive. But for us home inspectors, what we really need to know are two things:

1. the application of the asphalt shingles requires a solid surface, and
2. if the roof is not solidly sheathed, the asphalt shingles will not provide the proper, correct protection from the weather.









STEP #3

You're not required to walk upon any roof surface according to the InterNACHI Standards of Practice.

STEP #3

2. Sheathing should be fastened with a minimum of 8d common nails spaced at most 6 inches on center at supported panel ends and edges. At intermediate support areas, the fasteners should be at 12 inches on center.

STEP #3

3. There should be a 1/8-inch space at the panel ends and edges.

A 16d common nail could be used as a gauge.

STEP #3

4. The long dimension should be perpendicular to the supports.

Each piece should be continuous over at least two spans.

The panel should be at least 24-inches wide.



STEP #3

5. Panel spacer-type edge clips could be installed and recommended by some manufacturers.



STEP #3

6. End joints of each adjacent piece of decking should be staggered.

STEP #3

The four most common sheathing attachment mistakes include:

1. Using the wrong size fasteners,
2. Missing the framing members when installing fasteners,
3. Overdriving nails, and
4. Using too many or too few fasteners.

STEP #4

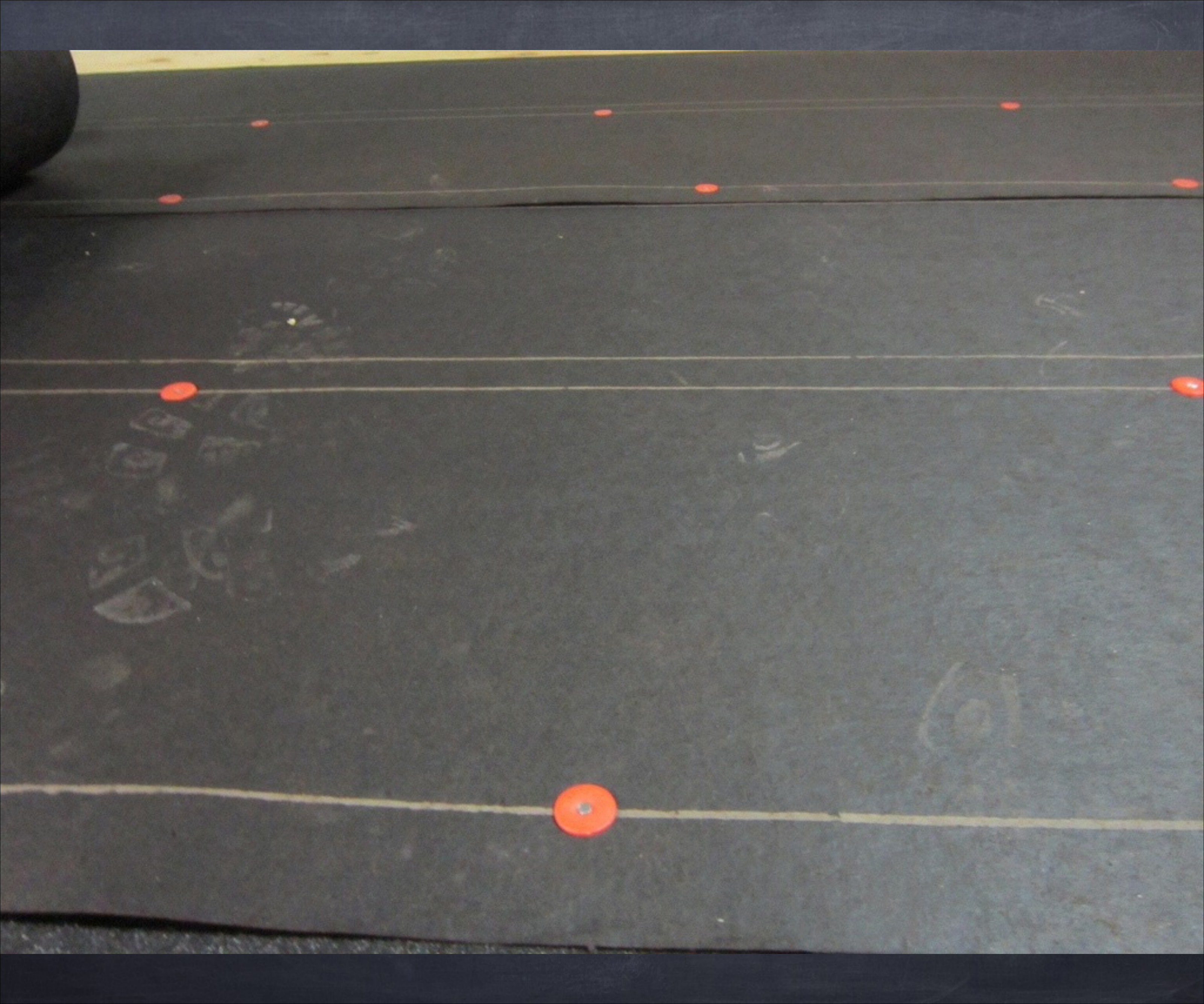
Check the slope and underlayment.

Inspecting the underlayment is all but impossible at an existing roof. However, there are a few essential concepts about underlayment that should be understood by all inspectors in order to evaluate the past performance of the roof covering that you're inspecting.

STEP #4

Underlayment does three things:

1. it provides protection from weather for a limited time until the roof covering is installed;
2. it provides a secondary weatherproofing barrier under the shingles; and
3. it separates the roof covering and the substrate.





STEP #4

You can classify underlayment in three ways:

- As a single layer of underlayment;
- As a single layer of self-adhering underlayment; or
- As a double layer of underlayment.

STEP #4

Underlayment is installed in relation to roof slopes.

For roof slopes at 4:12 or greater, there should be a minimum single-layer of underlayment applied horizontally in shingle fashion.

For roof slopes between 2:12 and 4:12, a single layer of self-adhering polymer-modified bitumen underlayment or a minimum double-layer underlayment should be installed.

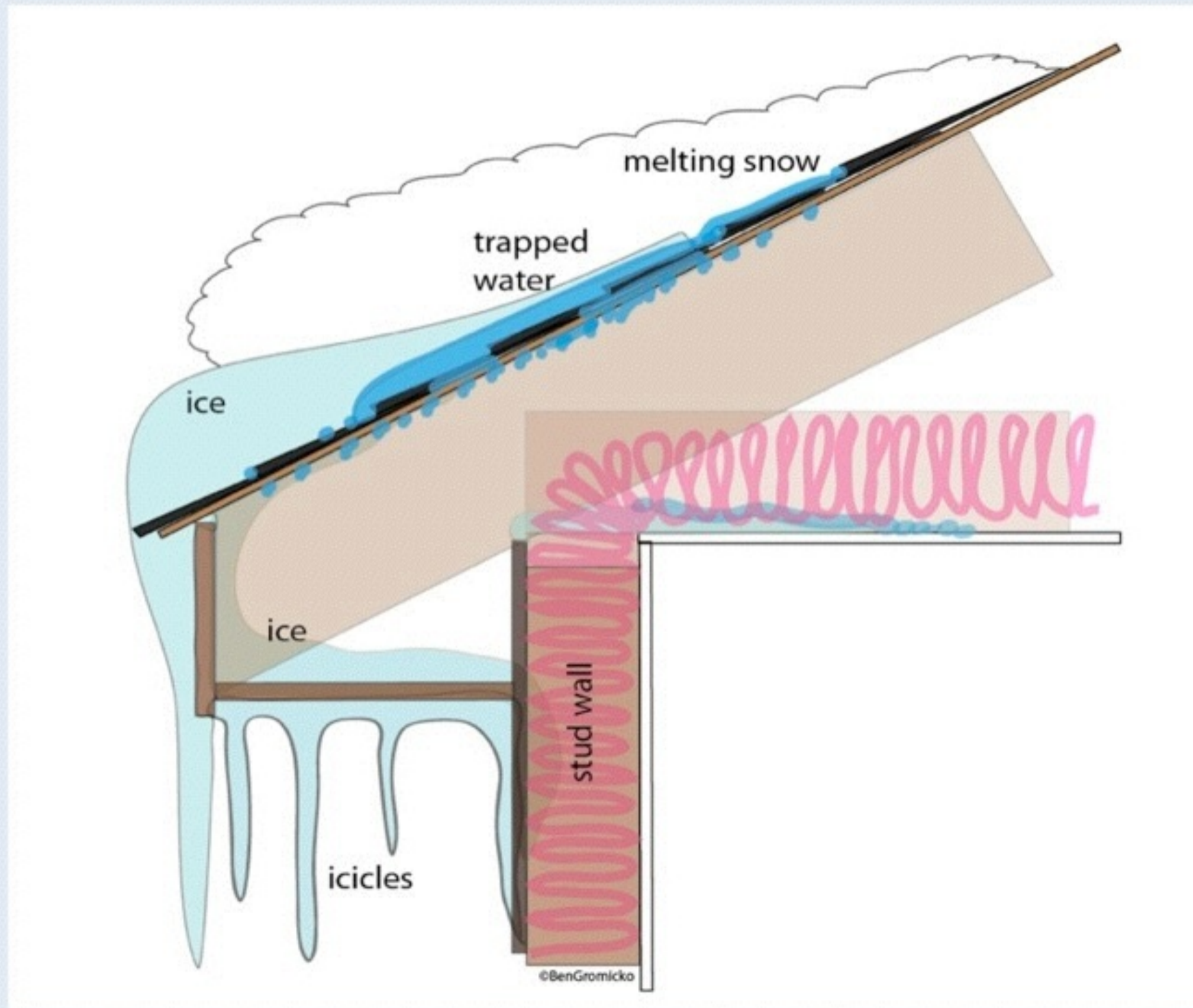
STEP #4

Most (if not all) asphalt composition shingle manufacturers will void the warranty if shingles are installed on a roof with a slope less than a 2:12 pitch. Asphalt shingles should not be installed on a roof slope 2:12 or less, unless some waterproofing design details are applied.

STEP #5

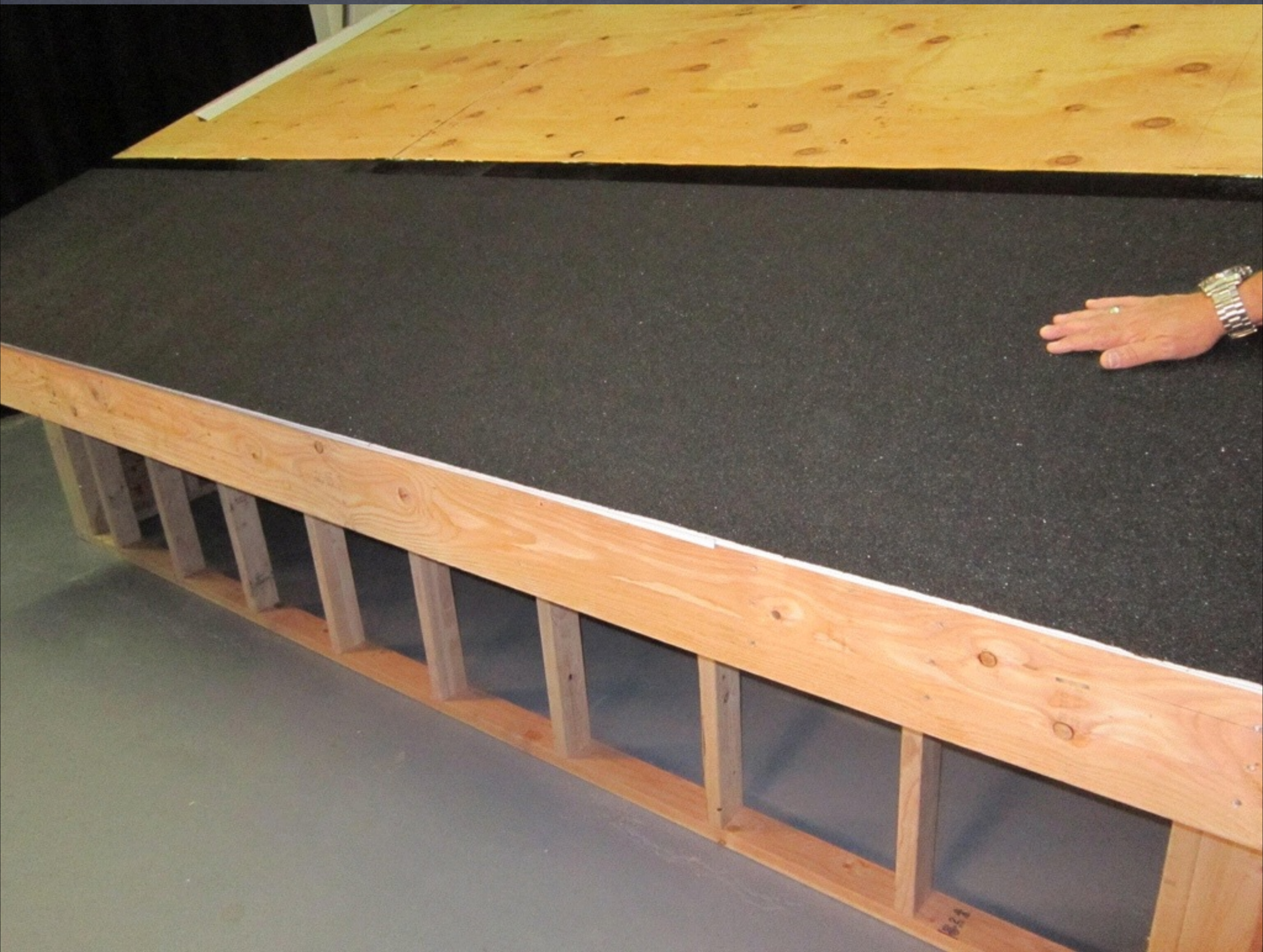
Check the ice barrier.

STEP #5



STEP #5

For areas that have an average temperature in January of 30 degrees F or less, a water and ice-dam protection membrane is a recommended best practice.





WEATHERLOCK® G

SELF-SEALING ICE & WATER BARRIER

Essential under-shingle roof
deck protection

- Self-sealing design helps prevent home interior damage from ice dams and water leaks
- Tear resistance to resist cracking during installation
- Slip resistant granulated surface

