



UNIQUE
DESIGNER SHINGLES



Stratford® Shingle Installation Instructions

IMPORTANT: THE STATEMENTS EXPRESSED ON THIS PAGE ARE THE RECOMMENDATIONS FOR THE APPLICATION OF THE ROOFING PRODUCTS AS OUTLINED AND ILLUSTRATED. ANY DEVIATION FROM THESE RECOMMENDED PROCEDURES SHALL BE AT THE SOLE RISK OF THE INSTALLERS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS DAMAGE TO THE APPLICATION AND LIFE OF THIS ROOFING PRODUCT, RESULTING IN THE TERMINATION OF ANY WARRANTY, EXPRESSED OR IMPLIED.

1.) GENERAL INSTRUCTIONS

These shingles are warranted against manufacturing defects and wind gusts up to 60 MPH. OPTIONAL WARRANTY PROTECTION AGAINST WIND GUSTS UP TO 80 MPH IS AVAILABLE WHEN SPECIAL APPLICATION DETAILS ARE FOLLOWED (See Section #10 and Diagram #6). A copy of the Stratford(tm) Limited Warranty is available from your supplier, or applicator, or by writing to: Atlas Roofing Corporation, Attn: Consumer Service Department, 2564 Valley Road, Meridian, Mississippi, 39307. The following instructions must be followed to qualify for protection under the Stratford(tm) Limited Warranty.

Important: Do not apply Stratford(tm) shingles on roofs having a slope less than 2" per ft. See special instructions for Low Slopes (2" to 4" per ft.) and for Steep Slope/Mansard/High Wind application. To obtain stated area coverage and to achieve design performance and appearance, the directions on this package must be followed. Sealing of the adhesive strips on each shingle to the shingle beneath is created by heat from sunlight. Sealing may be delayed if shingles are applied during cooler temperatures, or to roof areas which do not receive direct sunlight. Dust accumulation may also further delay sealing. If any of the strips have not activated properly after a reasonable time period, hand sealing may be necessary. Shingles in prolonged storage may pick up temporary staining which is removed by natural weathering. Double stacking can cause staining and sticking in the bundle. Atlas also endorses the Asphalt Roofing Manufacturers Association's (ARMA) recommendations for application details not specified on this wrapper.

2.) ROOF DECK VENTILATION

Adequate ventilation under the roof deck must be provided to prevent harmful condensation in winter and heat build-up in summer. These conditions can cause:

A.) accelerated roof weathering; B.) deck rot and attic fungus; C.) shingle distortion/cracking due to deck movement; D.) blisters. Atlas will not be responsible for damage to shingles as a result of inadequate ventilation. Ventilation provisions must meet or exceed current FHA Minimum Property Standards and conform to all building codes and regulations. To best ensure adequate ventilation and circulation of air, a combination of vents at ridge and eaves should be used. All roof structures, especially mansard and cathedral type ceilings, must have complete through ventilation from bottom to top. FHA Minimum Property Standards require one sq. ft. of net free ventilation area for each 150 sq. ft. of space to be vented; or one sq. ft. per 300 sq. ft., if vapor barrier is installed on the warm side of ceiling, or if at least one half the ventilation area is provided near the ridge.

3.) ROOF DECK

These instructions are for the application of shingles to nominal 1/2" thick American Plywood Association (APA) rated, code approved plywood, non-veneer decks or minimum 1" thick (nominal) wood decks. The plywood or non-veneer decks must comply with the specifications of the APA. The wood decking must be well-seasoned, not over 6" (nominal) width, and fastened securely to each rafter. Do not use green, unseasoned sheathing or undried, recently stripped form lumber. Deck surface should be clean, bare and flat. Stratford(tm) shingles must not be applied to any surface, other than roof deck types described. Atlas will not be responsible, under any circumstances, for the performance of its shingles if applied directly to any type of insulation such as perlite board, plastic foams, or fiberglass. Note: Atlas honors its limited shingle warranty when using Atlas shingles with the Atlas Vented-R nail base insulation. For more information contact your local building products supplier.

Atlas will not be responsible for the performance of its shingles if applied directly to decks composed of fiberboard, gypsum plank, lightweight concrete, cementitious wood fiber, or similar materials or to any decks directly installed over insulation with the exception of AC Foam Vented-R nail base insulation.

4.) FELT UNDERLAYMENT

Underlayment must be applied flat and unwrinkled. Building codes vary with geographic areas. Comply with local building codes or shingle manufacturer's requirements, whichever is stricter.

Shingles should be applied as soon as possible after the application of the underlayment felt, which is not intended for prolonged exposure. Atlas recommends that the shingles be applied the same day as the underlayment application to avoid wetting and wrinkling. If underlayment is used for prolonged dry-in, it should be visually inspected and, if wet, wrinkled, faded, or otherwise damaged, be removed and replaced with new approved underlayment.

Standard Slope Application: 4:12-21:12 Proper application requires that a single layer of felt underlayment be applied to decks with slopes of 4" per ft. or greater and consistent with all applicable building codes. This felt underlayment is required to achieve a Class A fire rating on the deck assembly. Lay felt over entire deck parallel to eaves, overhanging 1/4" to 3/8" with fasteners placed every 12" across the lower edge and with 2" overlap parallel to eaves and with 4" end lap parallel to rake. End laps shall be staggered 6 feet apart. Corrosion-resistant drip edge should be placed over the underlayment at the rake and beneath the underlayment at the eaves.

Low Slope Application: 2:12-4:12

On slopes 2" to 4" per foot apply a double layer of felt underlayment over the entire deck surface. Starting with 19" wide strip at eaves, overhanging the eaves 1/4" to 3/8", cover with full 36" strip providing a 17" exposure. Continue with 36" strips lapping each course 19" over the preceding course. End laps for low slopes shall be 12" and staggered 6 feet apart. Install drip edge over the felt underlayment at the rake and beneath the underlayment at the eaves. (See Section #10)

5.) FLASHING

All flashing should be in place before shingles are installed. Cap flashings of sheet metal and base flashings of metal or mineral surfaced roll roofing should be used at vertical surfaces such as chimneys, skylights, vents, walls, etc. All flashings should be sealed with asphalt plastic cement. Consult the Residential Asphalt Roofing Manual published by the Asphalt Roofing Manufacturers Association (ARMA) for details concerning specific methods and types of flashing installation.

6.) ICE DAM PROTECTION

Eave flashings must be installed where there is a possibility of icing along the eaves causing a backup of water. Atlas' mineral surface roll roofing, smooth roll roofing, or its equivalent must be applied directly over felt underlayment and according to application instructions provided with the product. The roll roofing must extend up the roof at least 24" beyond the interior wall line, and in areas of severe icing, at least up to the highest water level expected to occur from ice dams. If overhang requires flashing wider than 36," the necessary 6" (minimum) horizontal lap must be located on the overhang and cemented. End laps must be 12" (minimum) and cemented. StormMaster® DG as supplied by Atlas is recommended as the first layer of Ice Dam Protection. StormMaster® DG conforms to ASTM D1970.

7.) VALLEYS

Valleys must be installed before Stratford™ shingles are applied.

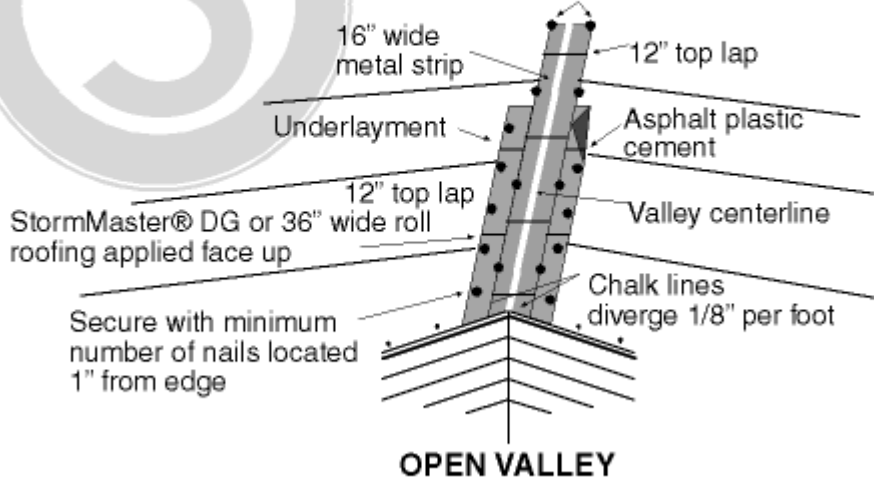
Open Valley: Over felt underlayment, apply a 36" wide mineral surface roll roofing (with granular side up) or smooth roll roofing centered in the valley. Install 16" wide minimum copper flashing (or equivalent) also centered in valley. Secure the copper flashing every 24" along both edges either with copper cleats or large head copper nails with the shanks immediately adjacent to the copper edge. Overlaps in the metal must be a minimum of 12".

Strike chalk lines on each side of the copper valley 3" from the center line. As shingles are applied, trim them to chalk lines and, to direct water into valley, cut 2" diagonally off upper corner of shingles adjacent to chalk line. Set valley edge of each shingle in a 3" wide band of asphalt plastic cement meeting ASTM D 4586 and nail no closer than 6" from valley center line. See Diagram #1.

OPEN VALLEY

DIAGRAM 3

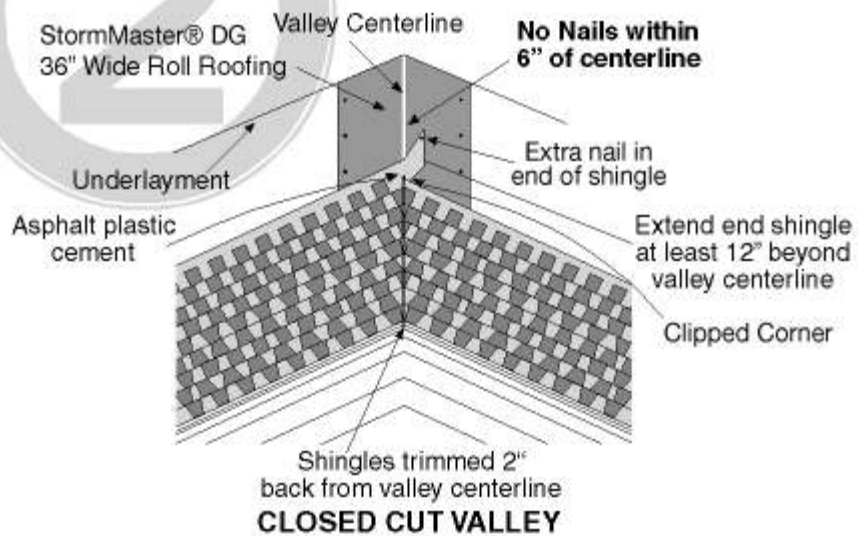
Embed metal in asphalt plastic cement and secure every 24" adjacent to but not through the metal edge.



Closed Cut Valley: Over felt underlayment, apply a 36" wide mineral surface roll roofing (with granule side up) or smooth roll roofing centered in the valley, nailing 2" from outer edges only. Apply all shingles on one side of valley and across center of valley, a minimum of 12". Nail a minimum of 6" away from the center line of the valley on the unshingled side and strike a chalk line 2" from the center line on the un-shingled side. Apply shingles on the unshingled side up to the chalk line and trim. Do not cut the underlying shingle. Cut upper corners of the shingle, cement and nail. See Diagram #2.

CLOSED CUT VALLEY

DIAGRAM 2

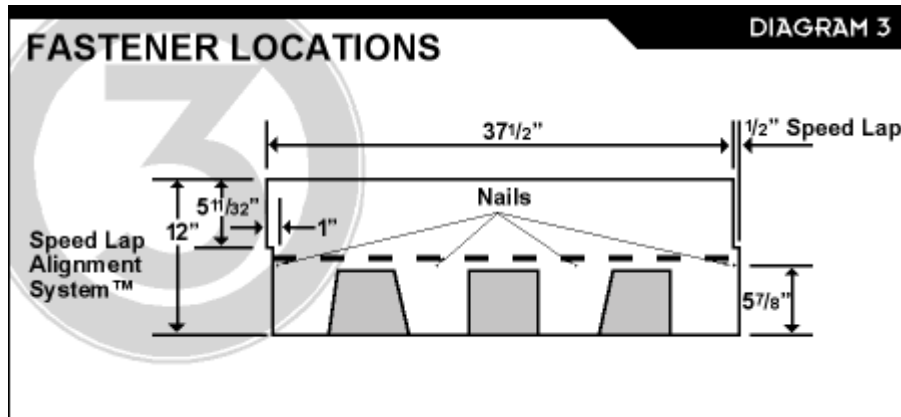


8.) FASTENING (STANDARD 4 NAIL)

Placement of fasteners is critical to overall performance. New Roofing Application (first shingle layer): 4 nails are required per shingle to maintain standard wind performance. The nails are to be located 5-7/8" above the bottom edge of the shingle and 1" in from each side of the shingles as illustrated in Diagram #3. All nails must be driven straight, with the heads flush to the shingle surface, never cutting

into the shingle. Nails must not be exposed (visible) on the finished roof. Nails must be 11 or 12 gauge, corrosion-resistant roofing nails with 3/8" minimum heads and must be a minimum of 1-1/4" long.

Re-Roofing Application (second shingle layer): Requires the same nail placement as New Roofing but NAILS MUST BE A MINIMUM OF 1-1/2" LONG.



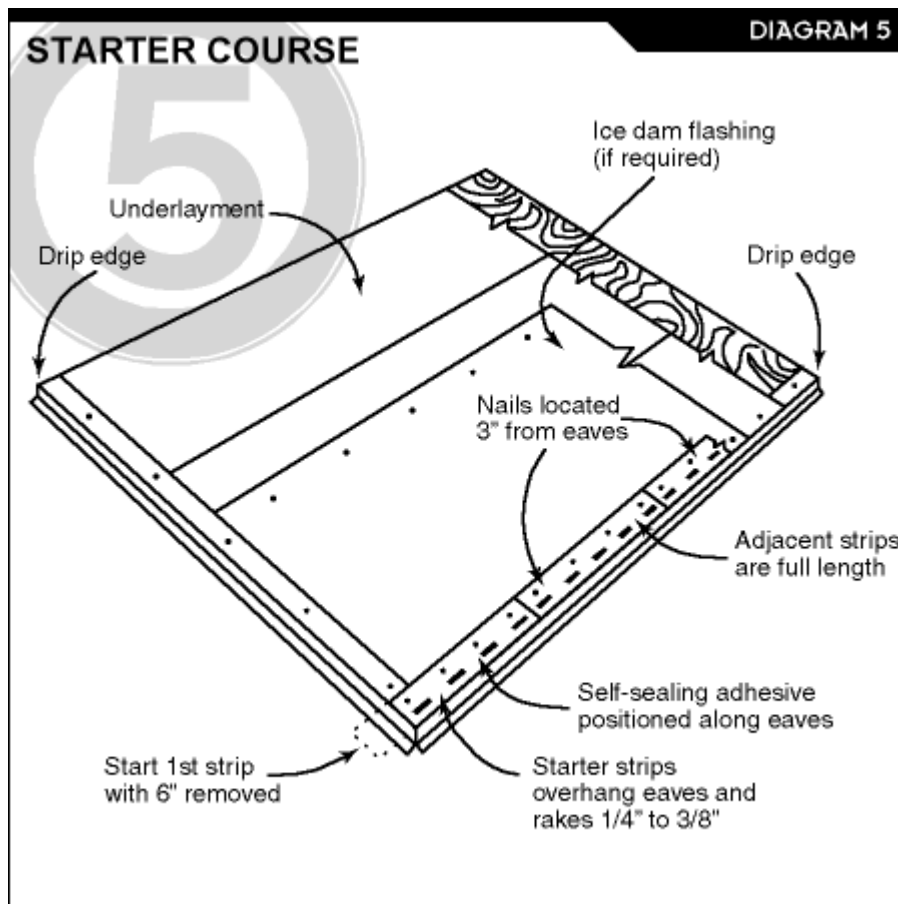
NAIL PLACEMENT IS IMPORTANT FOR WIND RESISTANCE. INCORRECTLY PLACED NAILS MAY VOID WIND COVERAGE OF WARRANTY.

(SEE SECTION #10 AND DIAGRAM #6 FOR THE 80 MPH OPTIONAL WIND WARRANTY PROTECTION)

9.) APPLICATION

Prepare deck with felt underlayment, drip edges and flashings as recommended. Horizontal and vertical chalk lines should be utilized to ensure proper shingle alignment from eave to ridge.

Starter Course: Use Stratford™ shingles as the starter course as follows. Trim 5-1/2" from the bottom edge, in a straight line, the full length of the shingle. The sealant line should be in line with the eave edge. Cut 6" off the left shingle end so that the offset for succeeding courses will be provided. Apply over the felt and drip edge with a 1/4" to 3/8" overhang beyond the drip edge. Begin at the left eave/rake corner and continue across the eave edge. Fasten with 4 (6 for high wind) nails per starter shingle, placed at 3" above the eave edge. This procedure ensures proper edge seal down. See Diagram #4.



Use 6 nail application to achieve 80 mph warranty provisions. See Diagram #6

First Course: Start first course at the left eave/rake corner with a full shingle. Install and fasten the first course flush with the lower edge of the starter course. Place 4 *(or 6) nails evenly spaced below the lower edge of the sealant lines in all shingles as the course is continued across the eave edge. Note: An optional band of asphalt plastic cement conforming to ASTM D4586 may also be applied to the rake edge shingles with each course to add wind uplift resistance and to repel wind driven rains. See Diagram #5 *(6 nails to achieve 80 mph warranted wind resistance).

Second Course:

(Application) Cut 6" off the left end of the first shingle and install it at the left rake edge. Align the bottom of the speed lap with the top of the first shingle for proper exposure. Continue across the course with the same alignment procedure, exposing the preset amount, set by the speed lap. Maintain the 6" offset on all succeeding courses.

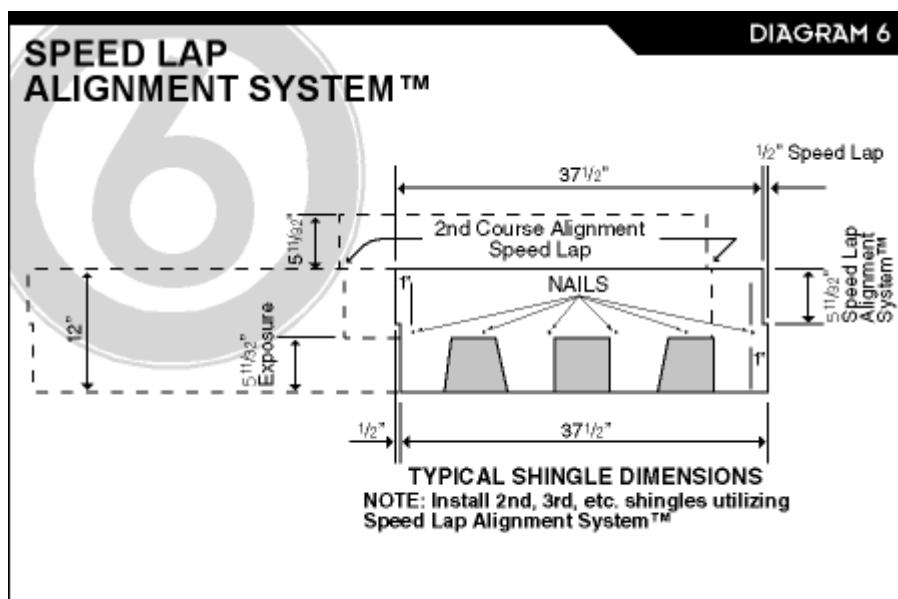
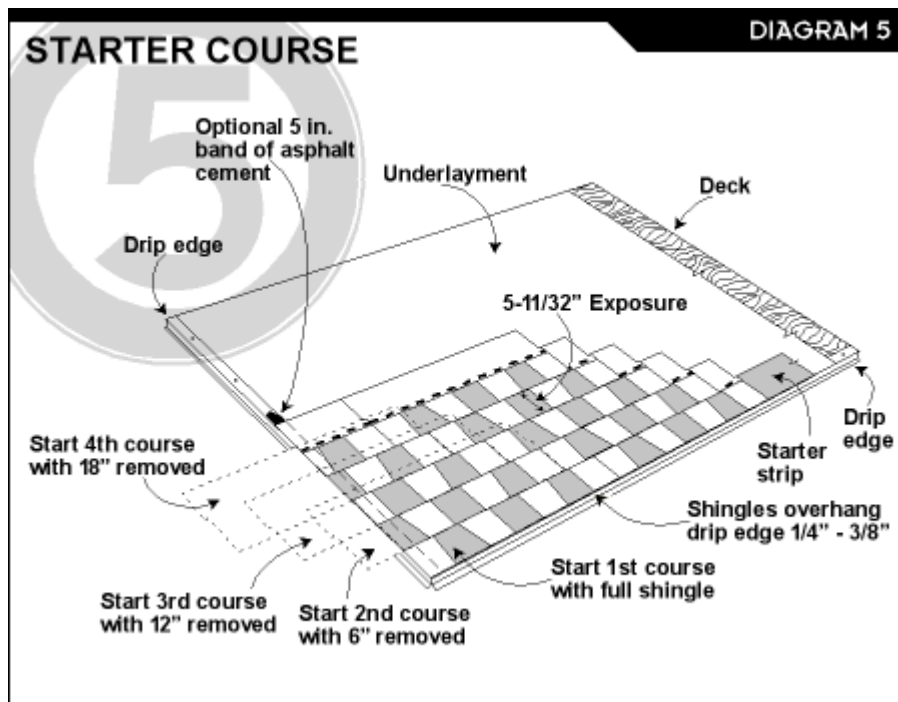
Third Course: Cut 12" off the left end of the first shingle and proceed across as in second course, using the speed lap notch feature to determine the exposure.

Fourth Course: Cut 18" off the left end of the first shingle and proceed across as in second and third course.

Fifth Course: Repeat course as in first and succeeding courses to completion.

Tip: Strike horizontal lines at regular intervals up the roof to ensure that proper alignment on all courses is maintained.

Tip: Strike vertical lines at regular intervals to use as a check for maintaining the proper 6" offset at shingle ends, course to course up the roof.



10.) STEEP SLOPE/MANSARD/HIGH WIND APPLICATION

For Steep Slope/Mansard/High Wind application, 6 fasteners must be used with fasteners located 5-7/8" above shingles butt edge, 1" from each side of the speed laps (spaced per Diagram #6).

Immediately upon application to slopes exceeding 21" per ft., apply six (6) quarter size spots of asphalt plastic cement under each shingle as shown below. One spot is to be placed 1" to 2" from the side edge of each shingle and near the bottom edge and press into position. Cement should come near the edge of the shingle, but not be exposed.

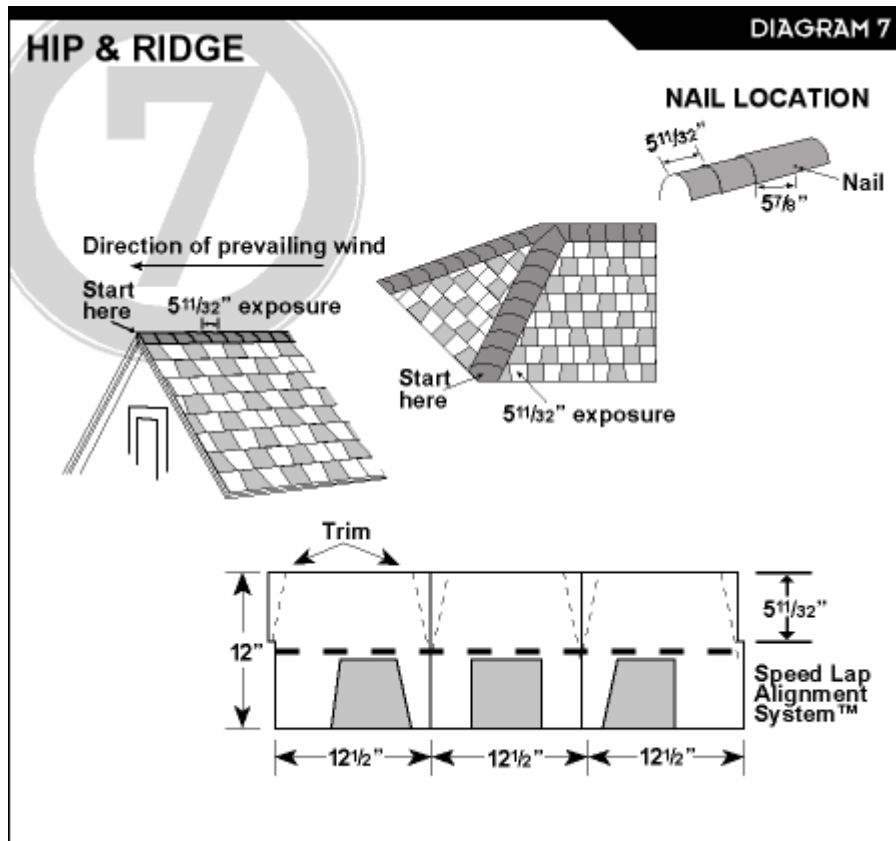
CAUTION: Excessive use of roofing cement can cause shingles to blister.

Note: A minimum 1" wide band of asphalt plastic cement meeting ASTM D4586 must be applied to the rake of the roof with each shingle course to provide high wind resistance.

11.) HIP AND RIDGE

To prevent cracking in cold climates when applying to hips and ridges, shingles must be sufficiently warm and flexible.

Apply hip & ridge shingles with a 5-11/32" exposure, beginning at the bottom of the hip or from the end of the ridge in the direction opposite of prevailing winds. Use two 1-1/2" long nails per shingle, with one nail on each side, 5-7/8" back from the exposed end and 1" up from the edge so succeeding shingles conceal nail heads. Trim final shingle to fit and set in plastic cement. Hip and Ridge shingles should be made from the Stratford™ shingle or other color matched Hip and Ridge product which offers a 25 year warranty. Cut the strip in thirds. Taper the top portion of each slightly so that it is narrower than the exposed portion. See Diagram #7.



12.) RE-ROOFING OVER ASPHALT SHINGLES

High wind limited warranty features do not apply to Stratford™ applications over existing shingles.

Replace all missing shingles. Split and securely nail all buckles, raised tabs or curled shingles. Ensure attic ventilation complies with FHA Minimum Property Standards as stated previously. A layer of ASTM D226, Type II or ASTM D4869, Type II, 30 Asphalt Felt is to be applied over the old shingles and then proceed with the new shingles as if applying a new roof. The nesting method is also acceptable over flat, uncurled, and secured three-tab shingles. IMPORTANT: NAILS MUST BE A MINIMUM OF 1-1/2" LONG AND PLACED AS STATED UNDER FASTENING. See Section 8.

WARNINGS & PRECAUTIONS

WARNING: Roofing application can be dangerous. All necessary precautions and safety guidelines should be observed in accordance with proper roofing trade practices.

Every effort should be made to keep roof traffic to a minimum. Regular roof maintenance should be performed in the cooler parts of the day.

Important Precautions: Store on flat surface. Protect from weather during storage and on job site.

DISCOLORATION: Some shading or variations in the colors may occur due to positioning or embedment of the granule. When asphalt shingles are packaged, they are under a certain amount of pressure due to weight. Minor staining may occur. While in storage, they may also pick up varying amounts of backing material used to keep the shingles from sticking together. These discolorations are temporary and are removed by natural weathering.

MINIMUM STANDARD SLOPE REQUIREMENT NOT LESS THAN 4 INCHES PER FOOT. LOW SLOPE REQUIREMENT NOT LESS THAN 2 INCHES PER FOOT.

DO NOT MIX WITH MATERIAL BEARING DIFFERENT COLOR NAME ON THE SAME ROOF.