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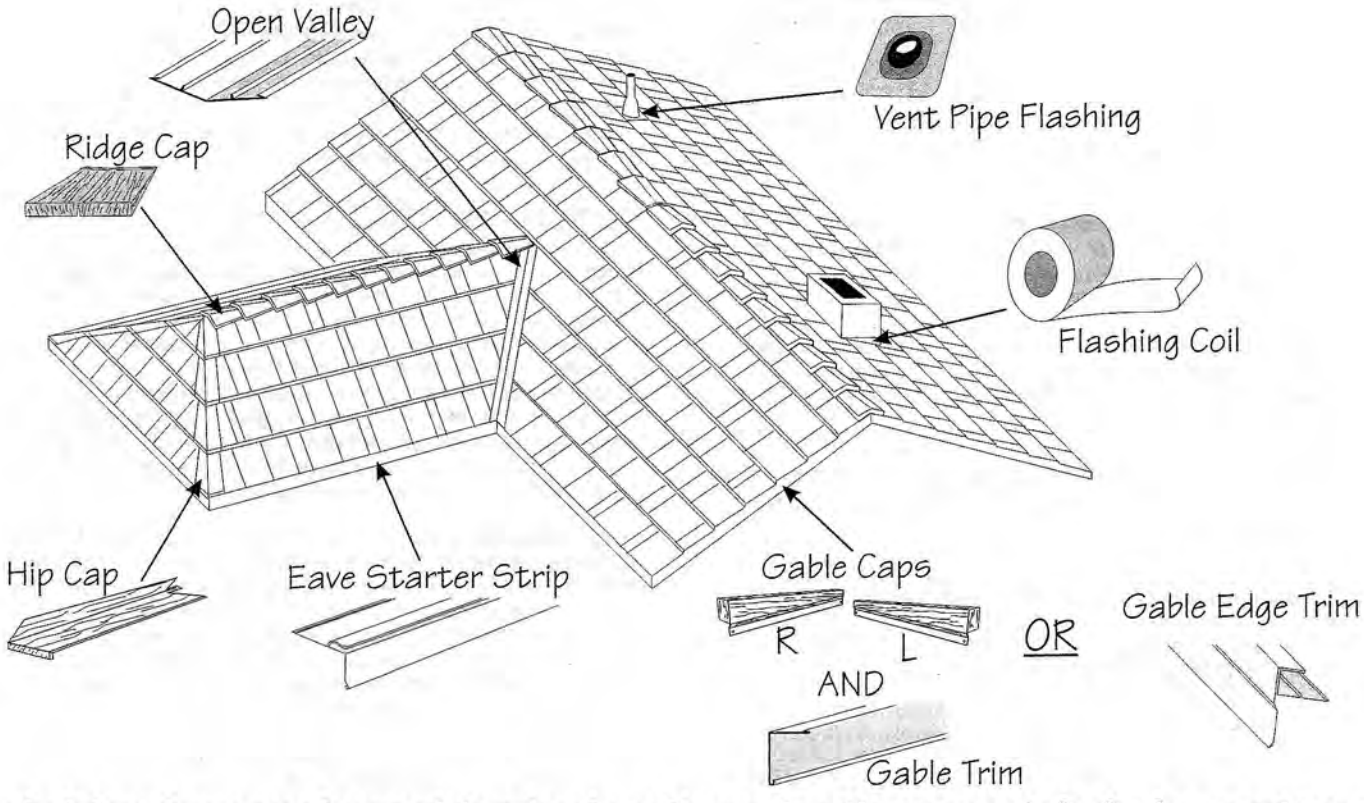
ALUMINUM ROOFING
INSTALLATION INSTRUCTIONS



This abridged manual provides instructions for these metal shake systems:

SH-401 RUSTIC SHINGLE

ARGO BUILDING PRODUCTS, INC.

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GENERAL GUIDELINES

Use only Classic Products' aluminum screwshank nails. Nails should be long enough to penetrate sheathing or at least 1" into solid lumber.

Use only accessories supplied by Classic Products, with matching finish. Do not apply copper, tin, galvanized steel, iron, terne or other dissimilar metal parts with these aluminum roofing systems.

Minimum pitch is 3:12. On steep installations, distribute weight loads by placing planks under ladders or other scaffolding used on the roof.

Shingles are walkable, but care should be taken to step on the upper halves of the shingles, where the panels taper to lay on the decking.

SPECIAL INSTALLATION NOTES

Letters to the right of each heading refer to these notes

A:

This flashing has a return flange to act as a channel for water to run down the roof under the shingles. Be careful not to flatten this return flange. No nails should penetrate the flashing within this channel area. Fasten the flashing to the roof with Nail Clips 12" on center. Also, the shingle at the bottom of this channel should be notched to allow the water to run out. Shingles should be secured with a Nail Clip outside the return flange.

B:

Insulate aluminum flashings from contact with existing metal or masonry with a coating of roofing cement and a layer of roofing underlayment.

C:

Install shingles into this flashing with a ¼" gap between the edge of the shingle and the inside of the flashing, to allow water to run down the roof.

D:

If starting shingles out of this flashing and proceeding to the left, remember to stagger succeeding courses with full, ½, ¾ and ¼ shingles.

E:

Uphill flashings should nest inside or lap downhill by 6" and be sealed with Sealant (VP-275)

Installation Sequence

1. Prepare roof and apply underlayment.
2. Install **EAVE STARTER STRIP.**
3. Install **GABLE EDGE TRIM** or **GABLE TRIM** in preparation for later installation of **GABLE CAPS**. Also install **VALLEYS** and **FLASHINGS** as needed
4. Install **SHINGLES**, left to right, eave to ridge, and **HIP CAPS**.
5. Install **RIDGE CAPS.**
6. Install **SIDING CORNERS**, if needed.

Roof Preparation

Shingles may be installed over solid sheathing, old composition shingles, or thin (⅜" butt) wood shingles. To prepare for reroofing, nail down any loose or curled shingles and protruding nails, cut off overhanging shingles and remove any ridge or hip caps. When installing over wood shingles, cut back the shingles 4" from eaves and fill this area with new lumber. Sweep the roof clean. Shingles may not be installed over thick wood shakes, tile, cement shakes, or metal.

Underlayment

Cover entire roof with minimum 30 lb. felt or equivalent underlayment, from left to right, eave to ridge. Allow felt to overhang eaves by 1½", and extend up pipes and penetrations by 1½". Lap head and end joints 18", lap successive courses 6". Nail 12" on centers using Plastic-Top Felt Nails (N-501).
As an option for areas with heavy ice and snow potential, use ice & water shield or similar underlayment above overhanging eaves plus two feet past exterior wall line.

Starter Strip and Gable Treatment E

Fold overhanging felt against fascia and apply Starter Strip (SH-402, RSH-602) at the eaves. Nail to roof deck 12" on center. At a corner, snip the drip edge bead and top lock to bend Starter Strip around corner. Join two Starter Strips together by snipping 1" from top lock and sliding the two parts together, nested inside each other.
Two gable treatments are available: Gable Edge Trim, an all-in-one lineal channel (SH-417, RSH-617) or Gable Caps, for a realistic shake look (SH-406). Gable Caps require the prior installation of Gable Trim (SH-405), and are only available for Rustic Shingle and Heritage Shake (SH-401 & 801). In areas of heavy snow, use Flared Gable Trim.

Gable Edge Trim A C D E

Plumb cut the trim, and snip according to Illustration 1 to accommodate Starter Strip. In areas of high wind potential, face nail the drip edge to gable fascia with trim nails and apply Touch-Up Paint (SH-475).

Gable Trim & Gable Caps A D E

Install Gable Trim (SH-405) fastening with Nail Clips 12" on center to the roof deck. Install shingles to overhang the gable edge by ¾". After shingle installation, Gable Caps (SH-406) are applied to the ends of the shingles and nailed to gable fascia through pre-punched holes, or riveted to shingles or Gable Trim. At the ridge, gable trim from one side should be bent down and lapped over the other.

RUSTIC SHINGLE (SH-401)

Begin shingle installation at lower left corner. Slide bottom lock of shingle into Starter Strip and slide to gable according to the type of gable treatment used. To fully engage shingle interlocks, tap with hammer handle until shingle locks securely on bottom and left. Drive one nail through the pre-punched nailing tab in the upper right corner of the shingle, and fasten one Nail Clip to the middle of the top lock and nail it also. In areas of potential high wind, use two Nail Clips on top lock. On installations over wood shingles on spaced sheathing, the Nail Clip can be used on the right-hand lock at a level which allows secure fastening through the old shingles and into a lathe board. Another option is to use the Long Nail Clip (SH-414) on the top lock.

Continue installing shingles left to right, eave to ridge by engaging the bottom and left locks to surrounding shingles and/or Starter Strip. For maximum wind resistance and to avoid a "pattern" appearance on the roof, successive courses are staggered by starting with ½, ¾ and ¼ shingles. The fifth course from the eave should start with a full shingle, then the pattern repeats. Cut shingles and remove the left portion, keeping the section with the nailing tab. See Stagger Template on Rustic Shingle box for assistance.

Rustic Shingle is available insulated, using either an optional urethane foam backer or slide-in polystyrene foam insert. This foam does not affect installation procedures, except that extra care must be taken to assure that the shingle interlocks are fully engaged. The foam adds extra rigidity for walking. Use insulated shingles to form "paths" in high-traffic areas.

REGAL CREST (701) AND HERITAGE SHAKE (801)

Installation is similar to that of Rustic Shingle, with these annotations:
1. These shingles have no nailing tab in the upper-right corner. Instead, use Nail Clips along the top lock of the shingles, 12" on center (i.e. 3 for Regal Crest Shingle (701) and 4 for Heritage Shake (801, which requires the use of a different Nail Clip: 809)). Additional Nail Clips can be used in areas of potential high wind.
2. Maintain stagger pattern as described above, starting successive courses with full, ½, ¾ and ¼ shingles.

ACCESSORIES AND FLASHINGS

Open Valley A D E

Prepare the valley by laying a full width of 30 lb. felt (or equivalent underlayment) down the valley, using Plastic-Top Felt Nails (N-501). Chalk the center line of the valley, and set Open Valley (SH-425) in place. Trim Open Valley ¾" past the eave and fold into Eave Starter Strip. Top of Open Valley flashing should extend past the top of roof

valley by 4" and be folded down. Run Open Valley in one length if possible, or lap uphill portions 6" to 10" over downhill portions and seal. Shingles must be cut and bent to lap the Open Valley ridge dams. When a shingle course reaches the valley, the shingle that runs into the valley must be trimmed and folded over the Open Valley ridge dam (the raised fold between the middle of the valley and the return flange). The shingle should be marked ¾" past the ridge dam at the top of the shingle, and 1¾" past it at the bottom of the shingle. Draw a line to connect these marks, and cut. Then fold the resulting angled flange down over the Open Valley ridge dam, so that the bottom of the flange laps the flange of the shingle below it **(see Illustration 4)**.

Hip Caps D

Where the butt of a shingle reaches hip line, fold excess over hip line. Trim away excess which extends more than 3" past hip line. Use extra nailing clips on shingles at the hip. Hip Caps (SH-408, RSH-608) are installed by locking the front edge of each hip cap onto the butt edge of the shingles on either side of the hip. The top lock of the shingle is slit just enough to allow the Hip Cap to extend its full length up the roof. When you install the next course of shingles above the Hip Cap, face-nail through the shingle into the cap below, with three nails on either side of the hip line. These nails should be in a part of the shingle which will be covered by the next Hip Cap to be installed **(see Illustration 7)**. Note that the Regal Crest Shingle (701) requires the use of a different Hip Cap (708). Note that Hip Caps and Mansard Caps may be used without modification only when each side of the hip is the same pitch.

Mansard Caps D

For use on the corners of mansard roofs or very steep hip roofs, Mansard Caps (SH-420, RSH-620) are installed similar to Hip Caps, above. Note that the Regal Crest Shingle (701) requires the use of Siding Corners (716) in this instance.

Sidewall Flashing A B C D E

Sidewall Flashing (SH-421, RSH-621) is a "J" channel with a return flange on the roof deck and a leg extending up the wall which should be inserted behind the sidewall covering. If the flashing cannot go behind the siding, nail it to the sidewall and seal, or secure to wall with terminator bar and seal. If the sidewall is masonry, treat as chimney side flashing, below **(see Illustration 3)**.

Chimney Flashing A B C E

Make a ½" cut in the masonry above existing flashings and parallel to the roof deck. On the downhill side of the chimney, field-form a flashing to be received into this cut, extend down to the roof deck and 4" out on top of the installed shingles below. On sides of chimney, field-form flashings to be received into the cuts, extend down the chimney and 4" out onto the deck, where a ¾" ridge should stand. The flashings should continue 3" beyond this ridge, where they should have a ½" return flange. Shingles should be formed over this ridge similar to Open Valley ridge dams, above. The downhill ends of chimney side flashings should rest on top of the downhill chimney flashing. The uphill side of the chimney should be cricketed and a flashing should be formed to be received into the ½" cut, extend down over the cricket, and rest on top of the chimney side flashings. The uphill portion of this flashing should lay beneath the shingles above. Sidewall Flashing can be used in place of the field-formed side flashings **(see Illustration 2)**.

Vent Pipe Flashing A E

Bring felt 1½" up around pipe, and add an additional piece of felt extending 18" to each side, the downhill side of which should rest on top of the shingles beneath the vent pipe flashing. Seal felt seams, especially around pipe, with roofing cement. Bend ¼" return flanges on the sides and top of the flashing. Install the vent pipe flashing (SH-531 to SH-534) when enough shingles have been installed that the bottom of the flashing will lay on top of shingles below. Fasten the flashing with Nail Clips attached to the return flanges. Then install shingles around the pipe, cutting as necessary to allow only the pipe and neoprene boot to show **(see Illustration 6).**

***NOTE:** Please inquire with the manufacturer for other pipe flashing installation methods approved for specific geographic areas.*

Ridge Caps

The ridge must be watertight before installing Ridge Caps. Either: 1) bend the top course of shingles over the ridge by at least 2" or 2) field-form a flashing to make the ridge watertight. Install a field-formed starter piece on the ridge at the gable end to lock the first cap over. The first cap must either install into Gable Edge Trim as a shingle would, or be bent and nailed to gable fascia if Gable Caps are used. Install Ridge Caps by engaging back flange into front flange of previously-installed caps. Fasten with two Nail Clips on each return flange (4 per cap). Ridge Caps may be started at both gable ends and work toward the middle, where a trimmed cap attached with sheet metal screws will join them. Seal screw heads **(see Illustration 5).**

SPECIAL INSTRUCTIONS— FIRE-RETARDANT RATINGS

The normal underlayment of 30 lb. asphalt-saturated organic felt confers an I.C.B.O. Class C fire rating for both new and reroofing applications. The following are types of underlayment needed to meet Class A or B ratings:

New Roofing Class B

One layer of 72 lb. fiberglass mineral surface cap sheet or one layer of Elk VersaShield.

New Roofing Class A

Two layers of 72 lb. fiberglass mineral surface cap sheet or two layers of Elk VersaShield.

Reroofing Class B

One layer of 72 lb. fiberglass mineral surface cap sheet (for reroofing over wood shingles); one layer of 28 lb. asphalt-saturated fiberglass roll roofing felt (for reroofing over composition shingles); or one layer of Elk VersaShield.

SIDING INSTALLATION INSTRUCTIONS

Note: read roofing instructions first to learn basics of aluminum shingle installation.

To install as siding, begin by installing Siding Starter Strip (SH-412, RSH-612) around base of walls, leaving ½" between Starter Strip and corners. Install shingles left to right. Follow nailing procedures as per roofing, depending on the type of shingle being installed. Also, be sure to stagger successive courses with full, ½, ¾ and ¼ shingles. Install J-Channel at top of wall to receive tops of last course of shingles. Trim top shingles as necessary to fit into J-Channel. Since top lock will be missing, top shingles must be nailed through the shingle inside the J-Channel. Use at least two aluminum nails per shingle, and seal.

Inside Corners D

Install a 1¼" square strip of wood into inside corners, than install J-Channel (SH-404, SH-604) with the base of the "J"s against this wood, nailing to walls 12" on center. Install shingles into the J-Channel.

Window and Door Treatment D

Prior to reaching openings, install J Channel flush against window and door molding. Install shingles into vertical J-Channel trimmed to fit. Bottom of vertical J-Channel should rest outside of shingles below. Install shingles into J-Channel below windows similar to installing top course of shingles as described above. Install shingles above windows by trimming the shingles 2" below the base of the J-Channel and folding the excess into the J **(see Illustration 8)**.

Outside Corners D

Siding Corners (SH-413, RSH-613, 716) cover the outside corners, one per course. Install siding corners, bottom to top, by capping corner over the butt ends of the shingles and nailing top flange to the exposed corner.

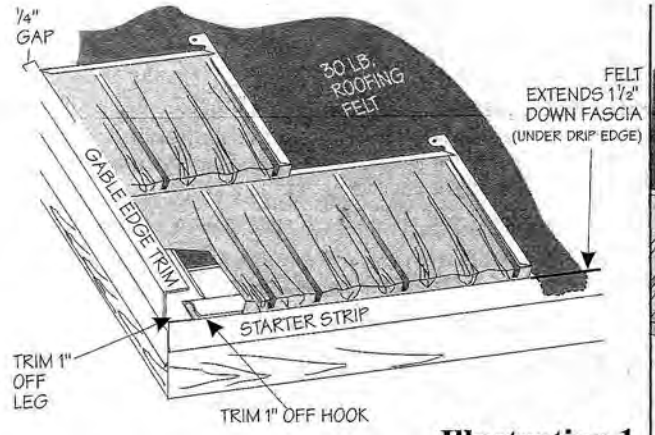


Illustration 1

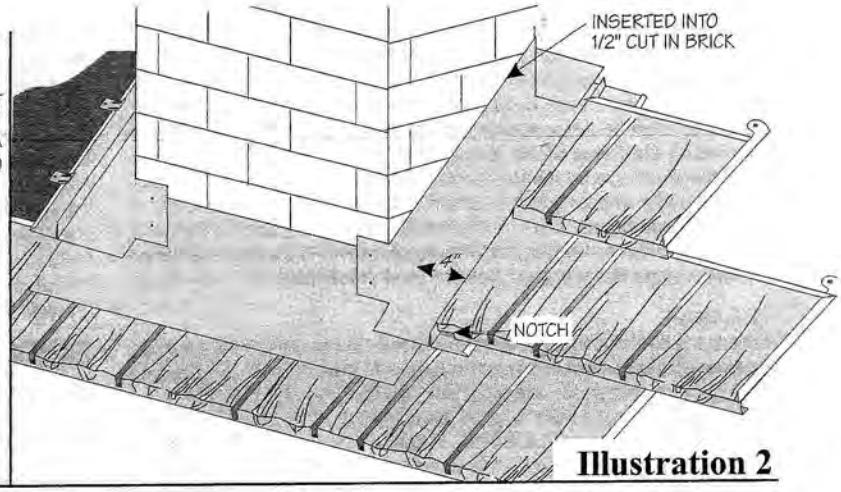


Illustration 2

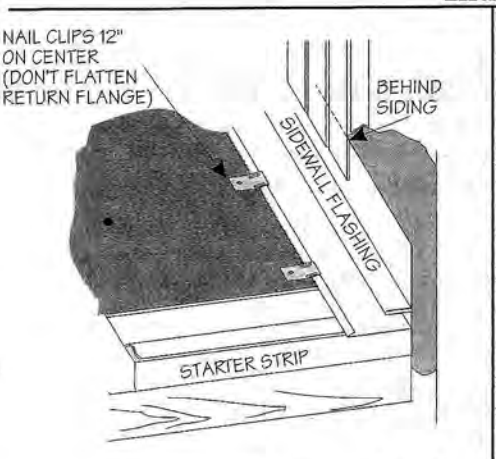


Illustration 3

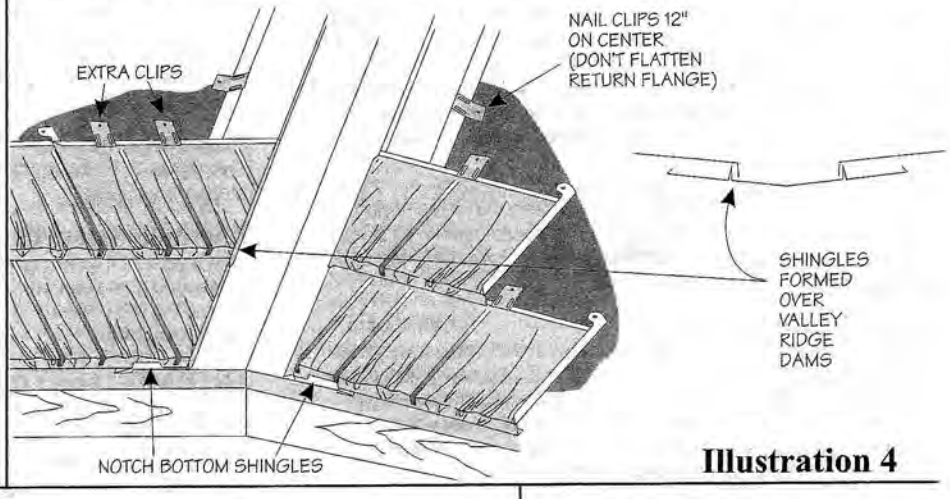


Illustration 4

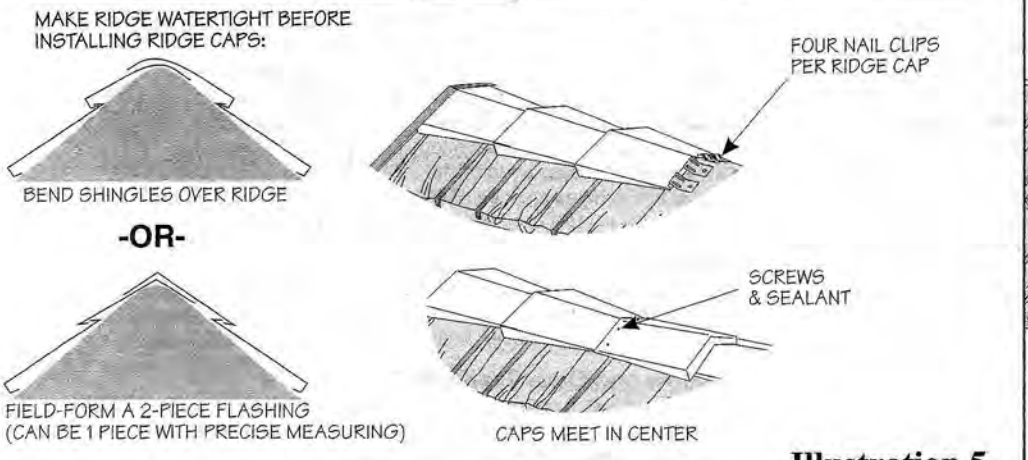


Illustration 5

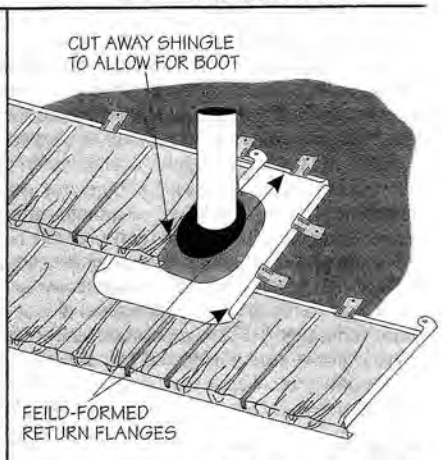


Illustration 6

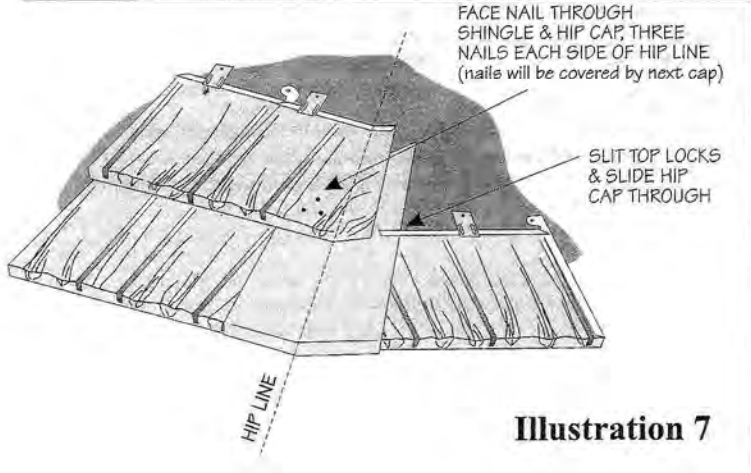
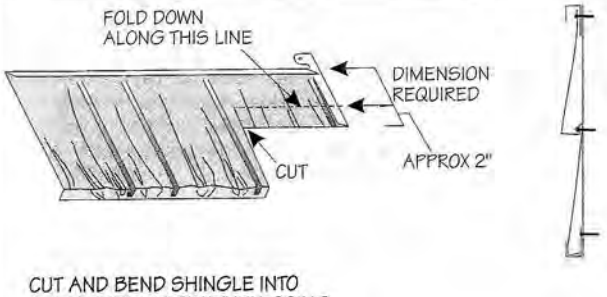


Illustration 7



CUT AND BEND SHINGLE INTO J-CHANNEL BELOW WHEN GOING ABOVE WINDOW OR DOOR

Illustration 8