

**CITY OF SACRAMENTO**  
1231 I Street, Sacramento, CA 95814

**Permit No: 0102331**  
**Insp Area: 2**

**Site Address: 6541 14TH ST SAC**  
Parcel No: 024-0344-005

Sub-Type: RES  
Housing (Y/N): N

**CONTRACTOR**  
ALL AMERICAN ROOFING  
2894 BUNSEN AV  
VENTURA CA 93003

**OWNER**  
NAKATOGAWA TOYOKO  
6541 14TH ST  
SACRAMENTO CA 95831

**ARCHITECT**

**Nature of Work: REROOF OVER SHAKE WITH DURA-LOC STEEL SHAKES 26 SQ.**

**CONSTRUCTION LENDING AGENCY:** I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C)

Lender's Name \_\_\_\_\_ Lender's Address \_\_\_\_\_

**LICENSED CONTRACTORS DECLARATION:** I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class C39 License Number 669242 Date 3-2-01 Contractor Signature DAFE

**OWNER-BUILDER DECLARATION:** I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code, any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00).

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code. The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code). The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law.)

I am exempt under Sec. \_\_\_\_\_ B & PC for this reason: \_\_\_\_\_

Date 3-2-01 Owner Signature DAFE

**IN ISSUING THIS BUILDING PERMIT,** the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 3-2-01 Applicant Agent Signature DAFE

**WORKER'S COMPENSATION DECLARATION:** I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

~~I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:~~

Carrier STATE FUND Policy Number 682-45446-T Exp Date 11/14/2001

(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to be subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 3-2-01 Applicant Signature DAFE

**WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.**

**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**



# ICBO Evaluation Service, Inc.

5360 WORKMAN MILL ROAD • WHITTIER, CALIFORNIA 90601-2299

A subsidiary corporation of the International Conference of Building Officials

## EVALUATION REPORT

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INSPECTOR

ER-4970

Reissued May 1, 1997

Filing Category: ROOF COVERING AND ROOF DECK CONSTRUCTION—Roof Coverings (202)

### DURA-LOC S AND FLAT STONE/STEEL ROOF TILES

DURA-LOC ROOFING SYSTEMS  
POST OFFICE BOX 220  
COURTLAND, ONTARIO NOJ 1E0  
CANADA

#### 1.0 SUBJECT

Dura-Loc S and Flat Stone/Steel Roof Tiles.

#### 2.0 DESCRIPTION

##### 2.1 General:

Dura-Loc S and Flat roofing tiles are pressure-formed from No. 26 gage [0.0179 inch (0.45 mm)] galvanized sheet steel complying with ASTM A 653 SQ, Grade 33, or Galvalume sheet steel complying with ASTM A 792, Grade 33, having an AZ 150 hot-dip aluminum zinc alloy coating. Overall tile size is 49<sup>1</sup>/<sub>4</sub> inches wide by 16<sup>1</sup>/<sub>2</sub> inches deep (1251 mm by 419 mm), with an installed exposure of 47<sup>1</sup>/<sub>4</sub> inches by 15<sup>13</sup>/<sub>16</sub> inches (1200 mm by 402 mm). Each tile laps with adjacent tiles to provide a weather-tight construction. The longitudinal cross section of the tile consists of five equal modules 9<sup>1</sup>/<sub>2</sub> inches wide (241 mm), each having a vertical lap interlock and nailing face created by a 3<sup>3</sup>/<sub>4</sub>-inch (19 mm) downturned front flange and a 3<sup>3</sup>/<sub>4</sub>-inch (19 mm) upturned back flange. The top edge of each tile has a horizontal lip parallel to the surface of the tile, to provide added support. The 3<sup>3</sup>/<sub>4</sub>-inch (19 mm) downturned left edge laps over the 3<sup>3</sup>/<sub>4</sub>-inch (19 mm) upturned right section of the tile. Each tile interlocks with adjacent tiles to provide 2-inch (51 mm) sidelaps at both ends. Individual tiles weigh 6.0 pounds (2.8 kg). The installed weight of the system is approximately 1.3 pounds per square foot (62 Pa). The tiles are coated with a coil-coated, baked-on primer on both sides, with a seal-coat on the reverse side. On the exposed side, stone granules are bonded to the tiles with acrylic resin. The surface is finished with clear acrylic overglaze. Accessory gable, ridge, hip and trim tiles are produced in a similar manner. See Figure 1 for additional details.

##### 2.2 Battens and Counterbattens:

Battens are 2-by-2-inch (51 by 51 mm) and counterbattens are 1-by-4-inch (25 by 102 mm) construction-grade Douglas fir, larch or better. When acting as spaced sheathing, minimum 2-inch-thick (51 mm) battens are limited to supports spaced at a maximum of 24 inches (610 mm) on center. Steel battens are hat-shaped sections with a 1<sup>1</sup>/<sub>2</sub>-inch (38 mm) minimum height, and are fabricated from 0.0149-inch-thick (0.4 mm) galvanized steel installed over 1<sup>1</sup>/<sub>2</sub>-inch (12.7 mm) plywood sheathing or spaced sheathing.

##### 2.3 Underlayment:

The steel tiles described in this report and installed on roof slopes of 2<sup>1</sup>/<sub>2</sub>:12 or greater require a solid or spaced sheathing and two layers of Type 15 or one layer or Type 30 asphalt-saturated organic felt underlayment. For roof slopes less than 2<sup>1</sup>/<sub>2</sub>:12, the tile must be installed over a complying roof covering installed in accordance with the code and with the approval of the building official having jurisdiction.

##### 2.4 Severe Climate Areas:

For use in areas subject to wind-driven snow, ice buildup, or wind-driven dust or sand, or in other areas as designated by the building official, both of the following conditions apply:

1. Solid sheathing with two layers of Type 15 felt, or one layer of Type 30 felt for the field of the roof. For installations over spaced sheathing, an underlayment complying with the ICBO ES Acceptance Criteria for Concrete Tile Underlayment on Spaced Sheathing, dated January 1989, and recognized in a current evaluation report, must be used.
2. Solid sheathing with two layers of Type 15 felt applied shingle-fashion and solid-cemented together with approved cementing material between the plies, extending from the eave up the roof to a point 36 inches (914 mm) inside the exterior wall line of the building.

##### 2.5 Installation of New Roofing: Noncombustible:

The tiles are designed to be installed on wood battens placed 15<sup>13</sup>/<sub>16</sub> inches (402 mm) on center over spaced or solid sheathing. Two-inch-by-2-inch (51 by 51 mm) wood battens are attached to the supporting framing member with 16d common nails and must be of sufficient length to penetrate at least 1 inch (25.4 mm) into the framing member. When using 1<sup>1</sup>/<sub>2</sub>-inch steel (38 mm) hat channels placed 15<sup>13</sup>/<sub>16</sub> inches (402 mm) on center over solid sheathing in lieu of 2-by-2-inch (51 by 51 mm) wood battens, channels are attached to supporting framing members with two 10-by-1<sup>1</sup>/<sub>2</sub>-inch (38 mm) screws spaced 24 inches (610 mm) on center, as shown in Figure 4. Tiles adjacent to the ridge are adjusted by cutting and bending vertically in the field. Valleys are framed to receive No. 28 gage [0.0149-inch (0.4 mm)] corrosion-resistant metal flashing extending at least 3 inches (76 mm) in each direction from the center line as shown in Figure 2. Valley flashing end laps are 4 inches (102 mm), minimum. Metal valley flashing must have one layer of Type 15 felt underlayment 36 inches wide (914 mm), directly under the full flashing length.

All full-size tiles are fastened in place on the roof prior to the cutting of tiles for placement at hips, ridges or valleys. The tiles are staggered a minimum of 9<sup>1</sup>/<sub>2</sub> inches (241 mm) or multiple module, and are fastened to battens with four 6d galvanized common nails 1<sup>1</sup>/<sub>2</sub> inches (38 mm) long, or with No. 10 by 1<sup>1</sup>/<sub>2</sub>-inch (38 mm) screws. Fasteners are positioned 1<sup>1</sup>/<sub>2</sub> inches (38 mm) from the center of the concave and along the downturned edge of the tile. Care must be exercised in nailing the tile, to avoid striking the tile's finished surface.

Gable rakes are provided with a continuous gable cap piece or barge cover, with the exposed surface treated the same as that of the regular tile. Ridge and hip board must have a minimum 1-inch (25.4 mm) thickness and project 4 inches (102 mm), minimum, above the rafters on existing roof surfaces, as shown in Figures 2 and 3. The tiles are fastened to the side of hip or ridge boards after mitering, cutting and bending, and then are capped with appropriate trim to match the tile finish. Tiles are cut and bent down into the valley pan, forming an open or closed valley. Openings in the roof are flashed

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This report is based upon independent tests or other technical data submitted by the applicant. The ICBO Evaluation Service, Inc., technical staff has reviewed the test results and/or other data, but does not possess test facilities to make an independent verification. There is no warranty by ICBO Evaluation Service, Inc., express or implied, as to any "Finding" or other matter in the report or as to any product covered by the report. This disclaimer includes, but is not limited to, merchantability.

with No. 26 gage corrosion-resistant metal flashing as required by Sections 1402.2, 1508 and 1509 of the code. Care is taken to adequately weatherproof the flashings and support them with additional blocking or roof framing as necessary. The Dura-Loc tiles installed in accordance with this section on new roofing are recognized as Class A roof coverings under Section 1504 of the code, and are limited to Exposure D areas having basic wind speeds up to 80 mph (129 km/h) and to structures with heights up to 40 feet (12 192 mm). When tiles are installed over  $\frac{1}{2}$ -inch (12.7 mm) plywood solid sheathing and with special inspection, where required, new roofing is limited to exposure areas, basic wind speeds and heights as noted in Table 1.

## 2.6 Reroofing Applications:

**2.6.1 General:** With the old roof covering removed, all conditions noted in Sections 2.1 through 2.5 apply. Dura-Loc roofing tiles may also be installed over existing wood shake, wood shingle, asphalt shingle or built-up roof, subject to the conditions set forth here, and providing the roof slope complies with Section 2.3. The combustible concealed cavity space created between the new roof covering and wood shingle or shake roofs shall be covered with approved materials listed in Section 1516.3 of the code. The existing roof must be inspected as set forth in Appendix Chapter 15 of the Uniform Building Code. Dura-Loc roofing tiles installed in accordance with Section 2.6.1 are limited to Exposure B areas having a basic wind speed up to 80 miles per hour (129 km/h) and to structures with heights up to 40 feet (12 192 mm).

**2.6.2 Class C:** Ridge and hip caps must be removed and the existing roof covering cut back flush with the fascia or barge cover. One-by-four wood counterbattens are installed parallel to the framing members at 24 inches (610 mm) on center, maximum. Counterbattens are fastened at 12 inches (305 mm) on center with nails penetrating completely through the roof sheathing or at least 1 inch (25.4 mm) into the roof framing member. Two-by-two battens, spaced  $15\frac{3}{4}$  inches (400 mm) on center, are nailed to the counterbattens with 16d common corrosion-resistant nails at each batten intersection. The tiles are fastened to the battens using not less than four 6d, corrosion-resistant, common nails or equivalent in the same manner as described in Section 2.5. New flashings shall be installed over and around all existing flashing, vents and chimneys in accordance with this report and the code. The valley used in reroofing must be as shown in Figure 4.

All loose gravel and debris must be swept off existing built-up roof coverings. Blisters in the plies must be cut and nailed flat. Raised perimeter, such as gravel stops, must be covered by the Dura-Loc roofing system. The system may be installed over integral gutters, provided there is a fascia board nailed to the rafters and installed outside the gutter.

**2.6.3 Class B:** Installation is similar to Class C except an underlayment of mineral-surface 72-pound cap sheet, listed by a quality control agency possessing an ICBO ES or NES evaluation report, is installed in the customary manner with 2-inch (51 mm) head laps over the existing roof-covering system, prior to installation of the battening system.

**2.6.4 Class A:** Installation is similar to that for Class C except a layer of Type 15 felt underlayment over a minimum  $\frac{1}{2}$ -inch-thick (12.7 mm), water-resistant core gypsum sheathing, complying with ASTM C 79-82a, is installed over the counterbattens using 4d gypsum wallboard nails. The wallboard joints are tightly butted.

## 2.7 Special Inspection:

Tile installation with wind-load condition limits noted in Table 1 of this report requires special inspection in accordance with Chapter 17 of the code. The special inspector shall observe the installation and record the product description, name, dimensions, and steel thickness; fastener type, diameter and length; plywood and batten dimensions; and verification of the components and the tile installation being in accordance with this report. The special inspector shall be a qualified person in accordance with Section 1701.2 of the code.

## 2.8 Wind Uplift:

Dura-Loc roofing tiles installed with not less than four 6d, galvanized, common nails or four No. 10 gage by  $\frac{1}{2}$ -inch (38 mm) sheet metal screws are acceptable on any portion of a roof having a basic wind speed up to 80 miles per hour (129 km/h), Exposure B, as set forth in Table 16-G of the code, and up to a maximum height of 40 feet (12 192 mm) above grade.

Dura-Loc roofing tiles installed on 2-inch-by-2-inch (51 by 51 mm) wood battens or  $\frac{1}{2}$ -inch (38 mm) steel hat channels placed over  $\frac{1}{2}$ -inch (12.7 mm) plywood solid sheathing with not less than five 6d, galvanized, common nails or five No. 10 gage by  $\frac{1}{2}$ -inch (38 mm) sheet metal screws, respectively, are acceptable as new roof construction on roofs having a basic wind speed and exposure as set forth in Table 1 and a maximum height of up to 40 feet (12 192 mm).

## 2.9 Structural Diaphragm:

Dura-Loc panel roofing systems may be used as structural roof diaphragms when installed directly over nominal 1-by-6 spaced Douglas fir sheathing, nailed with three 8d common nails in accordance with Table 23-I-Q of the code. To install panels over an existing wood shake or wood shingle roof on spaced sheathing, the shakes or shingles must be in suitable condition, with all pieces securely fastened in accordance with Table 15-B-2 of the code.

When placed directly over spaced sheathing, 1-by-4 counterbattens are aligned over framing at 24 inches (610 mm) on center, maximum, and secured with 16d nails at 12 inches (305 mm) on center. Nails must be within 6 inches (153 mm) of counterbatten ends. When installation is over existing wood shakes or wood shingles, the nail size must be increased to provide equivalent penetration into the supporting members. To support the tiles, 2-by-2 battens are placed across the counterbattens at  $15\frac{13}{16}$  inches (400 mm) on center and attached with one 16d nail at each intersection. The panels are then installed in accordance with Section 2.6 of this report. The resulting diaphragm has an allowable shear equivalent to  $\frac{15}{32}$ -inch-thick (12 mm) CDX plywood installed in accordance with Table 23-J-1 of the code using 8d nails over 2-inch (51 mm) wood framing members in an unblocked diaphragm. The maximum aspect ratio is 4. Diaphragm deflections may be estimated with the equation in Section 23.222 of UBC Standard 23-2, using the values for  $\frac{15}{32}$ -inch-thick (12 mm) CDX plywood.

## 2.10 Identification:

A label bearing the manufacturer's name and address, product name (Dura-Loc S Tile and Flat Tile), and evaluation report number (ICBO ES ER-4970) is affixed to each pallet or bundle.

## 3.0 EVIDENCE SUBMITTED

Data in accordance with the ICBO ES Acceptance Criteria for Special Roofing Systems (AC07), dated January 1995; results of comparative racking-shear tests; and installation instructions.

## 4.0 FINDINGS

That the Dura-Loc S and Flat tiles described in this report comply with the 1994 *Uniform Building Code*™ and the 1996 *Accumulative Supplement*, subject to the following conditions:

- 4.1 Installation and identification comply with this report and the manufacturer's instructions. Installation is by installers approved by the tile manufacturer.
- 4.2 Reroofing is limited to Exposure B areas having basic wind speeds up to 80 mph (129 km/h), and to structures up to 40 feet (12 192 mm) above grade.
- 4.3 New roof construction is limited to Exposure D areas having basic wind speeds up to 80 mph and to structures up to 40 feet (12 192 mm) above grade, as set forth in Table 1, when installation is in accordance with Section 2.8 of this report.
- 4.4 Special inspection in accordance with Section 2.7 of this report is provided.

This report is subject to re-examination in two years.

TABLE 1—NEW CONSTRUCTION WIND-LOAD CONDITIONS

EXPOSURE	MAXIMUM BASIC WIND SPEED (mph)	MAXIMUM HEIGHT (feet)	SPECIAL INSPECTION
B	80	40	Not required
D	80	40	Required
C	90	40	Required

For SI: 1 mph = 1.61 km/h, 1 ft = 304.8 mm.

	IMPERIAL	METRIC
<b>"S" TILE</b> Part # 10-XX-01		
Overall Length	49 1/2"	1250mm
Length of Cover	47 1/2"	1200mm
Width of Cover	15 1/16"	401mm
Upstand	3/8"	22mm
Tile Coverage	5.2 sq. ft.	0.48m <sup>2</sup>
Weight	6 lbs.	2.8 kg.
<b>"FLAT" TILE</b> Part # 20-XX-01		
Overall Length	49 1/2"	1250mm
Length of Cover	47 1/2"	1200mm
Width of Cover	15 1/16"	401mm
Upstand	3/8"	19mm
Tile Coverage	5.2 sq. ft.	0.48m <sup>2</sup>
Weight	6 lbs.	2.8 kg.
<b>BARREL CAP</b> Part # 10-XX-02		
Overall Length	16 1/2"	420mm
Length of Cover	15 1/16"	401mm
Width	5 1/2"	140mm
Overall Height	3 1/2"	90mm
Weight	1.2 lbs.	0.6 kg.
<b>SHAKE CAP</b> Part # 30-XX-02		
Overall Length	49 3/4"	1266mm
Length of Cover	48"	1220mm
Coverage per Side	3 3/8"	86mm
Weight	2.4 lbs.	1.1 kg.
<b>BOX BARGE</b> Part # 10-XX-09		
Overall Length	8'-0"	2443mm
Length of Cover	7'-8"	2340mm
Rear Downturn	1"	25mm
Width	1 3/4"	45mm
Front Downturn	4 3/4"	120mm
Weight	4.8 lbs.	2.2 kg.
<b>METAL BIRD EDGE</b> Part # 10-XX-13 Part # 10-XX-15		
Overall Length	8'-0"	2443mm
Length of Cover	7'-10 1/2"	2000mm
Profiled Height	2"	51mm
Pitched Return	1/2"	12mm
Exposed Height	3 1/2" / 5 1/2"	90mm / 140mm
Kick	1/2"	12mm
Weight	3.4 / 4.5 lbs.	1.6 / 2 kg.
<b>FGW</b> Part # 20-XX-13 Part # 20-XX-15		
Overall Length	8'-0"	2443mm
Length of Cover	7'-8"	2340mm
Exposed Face	3 1/4" / 5"	83 / 127mm
Kick	1/2"	12mm
Return	3/4"	19mm
Weight	3.3 / 4.4 lbs.	1.6 / 2 kg.
<b>VALLEY FLASHING</b> Part # 10-XX-04		
Overall Length	8'-0"	2443mm
Length of Cover	7'-8"	2340mm
Horizontal Flange	1"	25mm
Gutter Width	5"	127mm
Upstand	1 1/8"	35mm
Weight	6.7 lbs.	3 kg.
<b>WALL FLASHING</b> Part # 10-XX-08		
Overall Length	8'-0"	2443mm
Length of Cover	7'-8"	2340mm
Upstand	2 1/2"	57mm
Horizontal Width	1 1/4"	45mm
Downturn	1/4"	32mm
Weight	3.5 lbs.	1.6 kg.

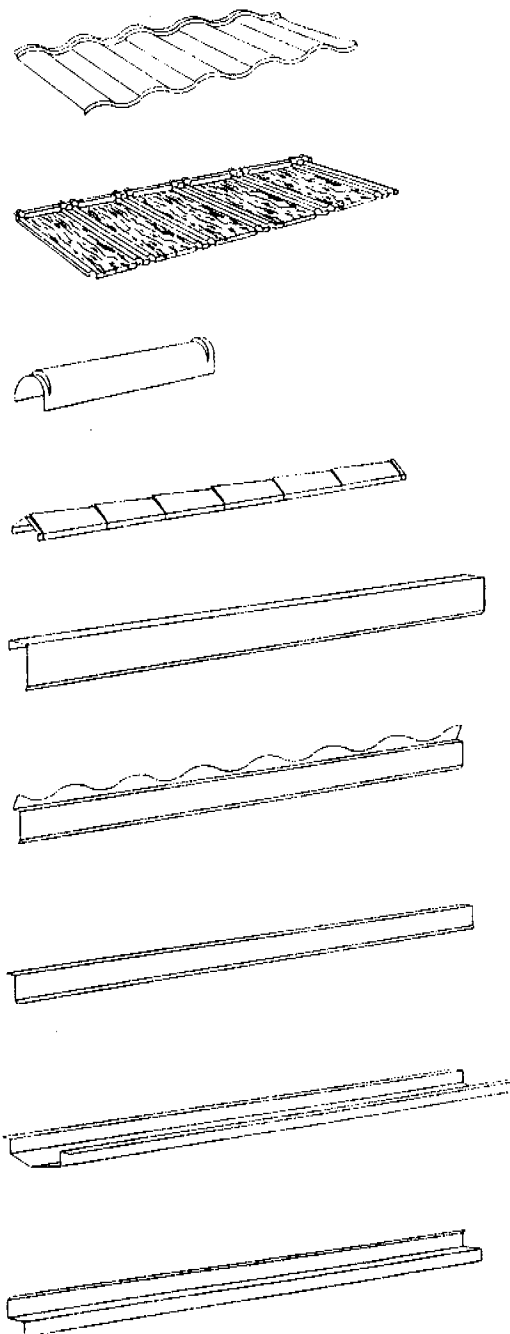
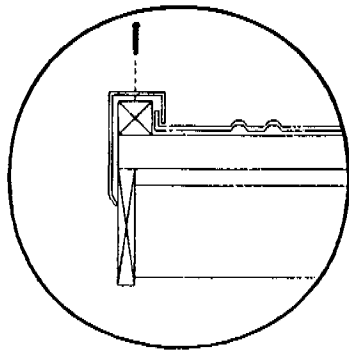
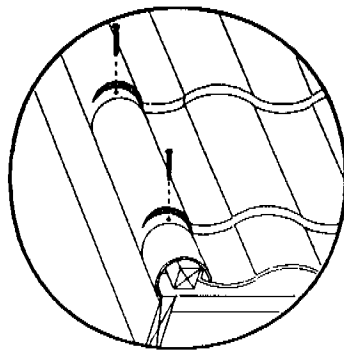


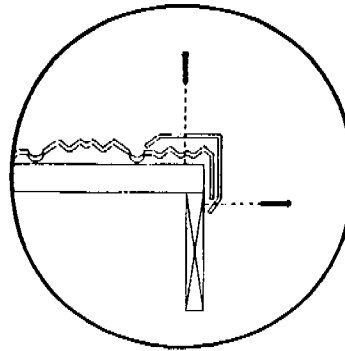
FIGURE 1—MATERIALS



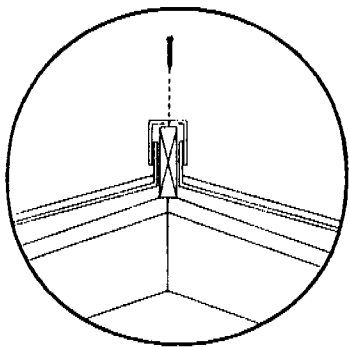
GABLE - SQUARE TRIM



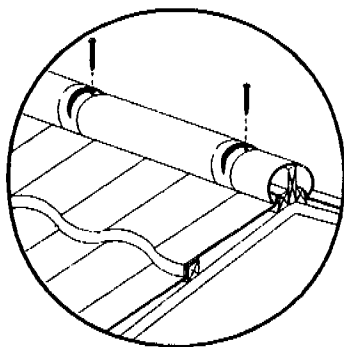
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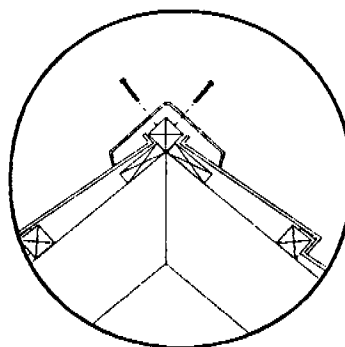
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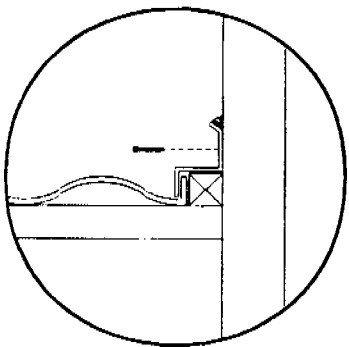
RIDGE/HIP - SQUARE TRIM



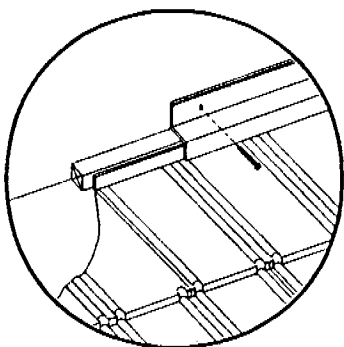
RIDGE/HIP - BARREL CAP TRIM



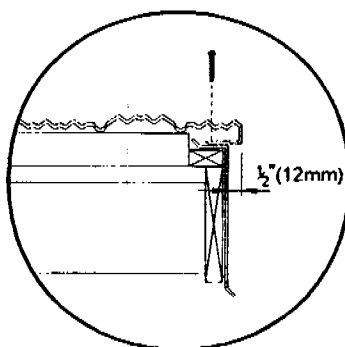
RIDGE/HIP - SHAKE CAP TRIM



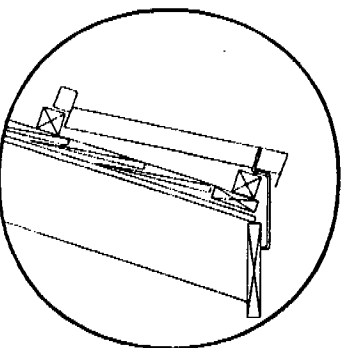
SIDEWALL FLASHING



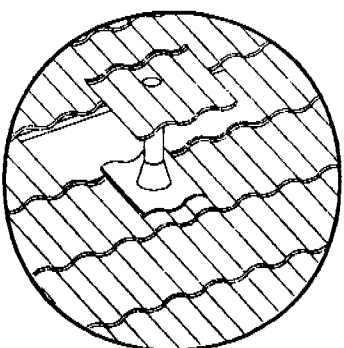
HEADWALL FLASHING



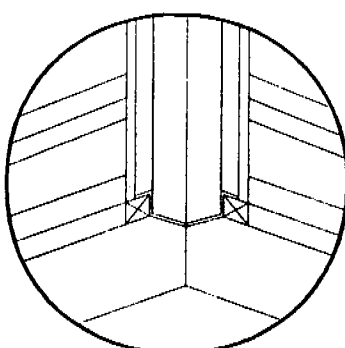
FINISHED END DETAIL



METAL EDGE

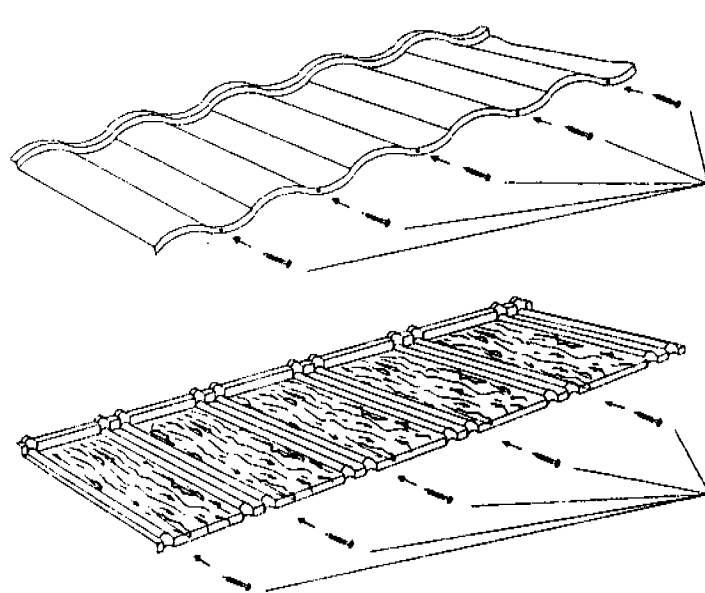
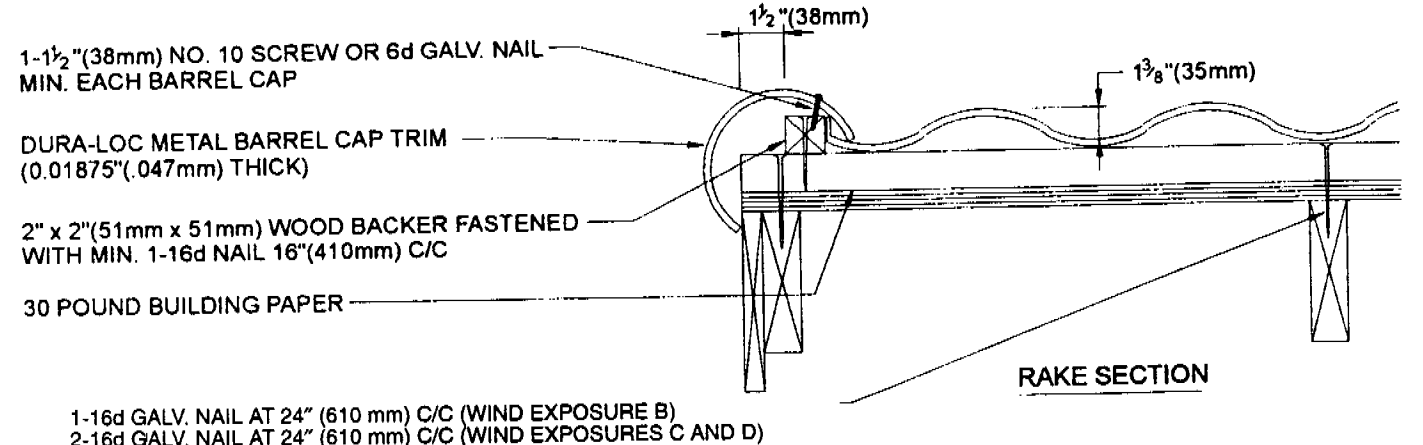
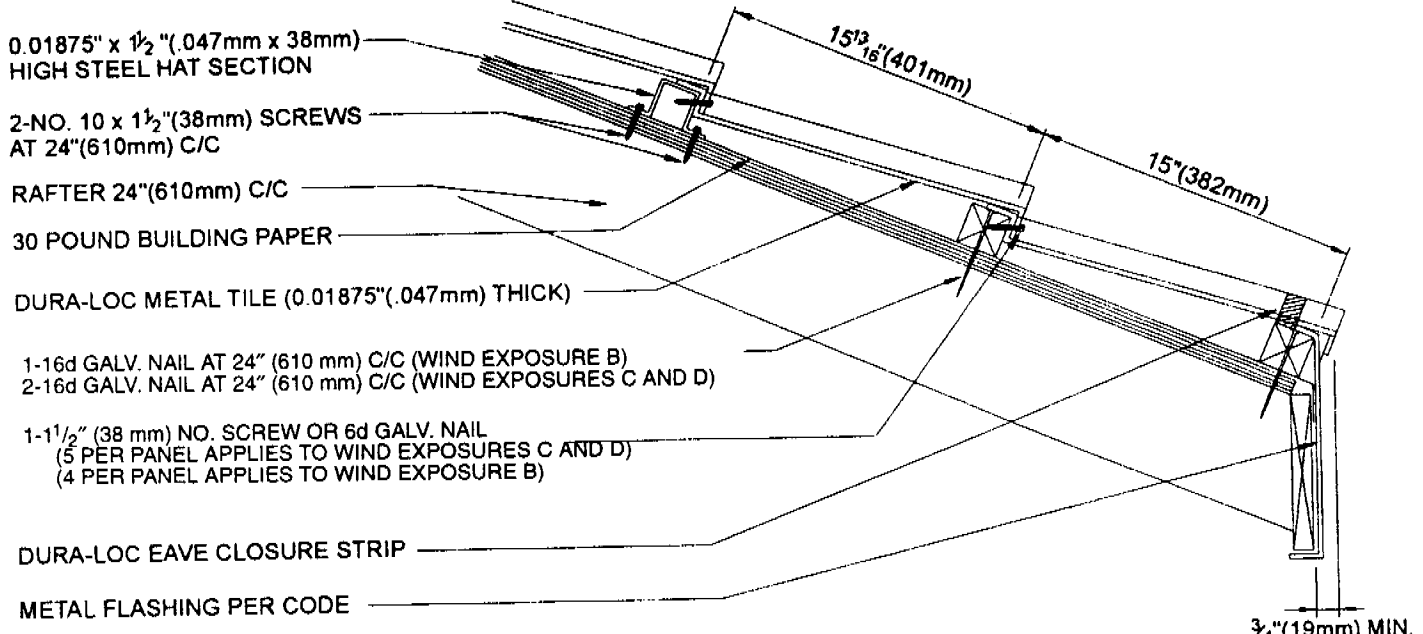


JACK FLASHING



VALLEY DETAIL

FIGURE 2—INSTALLATION DETAILS



**FASTENING POINTS**  
5-1 1/2" (38 mm) NO. 10 SCREWS OR 6d GALV. NAILS PER WIND EXPOSURES C AND D  
4-1 1/2" (38 mm) NO. 10 SCREWS OR 6d GALV. NAILS PER WIND EXPOSURE B  
[LOCATE 1 1/4" (32 mm) OFF TROUGH CENTER]

**FASTENING POINTS**  
5-1 1/2" (38 mm) NO. 10 SCREWS OR 6d GALV. NAILS PER WIND EXPOSURES C AND D  
4-1 1/2" (38 mm) NO. 10 SCREWS OR 6d GALV. NAILS PER WIND EXPOSURE B  
[LOCATE 1 1/4" (32 mm) OFF TROUGH CENTER]

**FIGURE 3—INSTALLATION DETAILS AND FASTENING SCHEDULE**

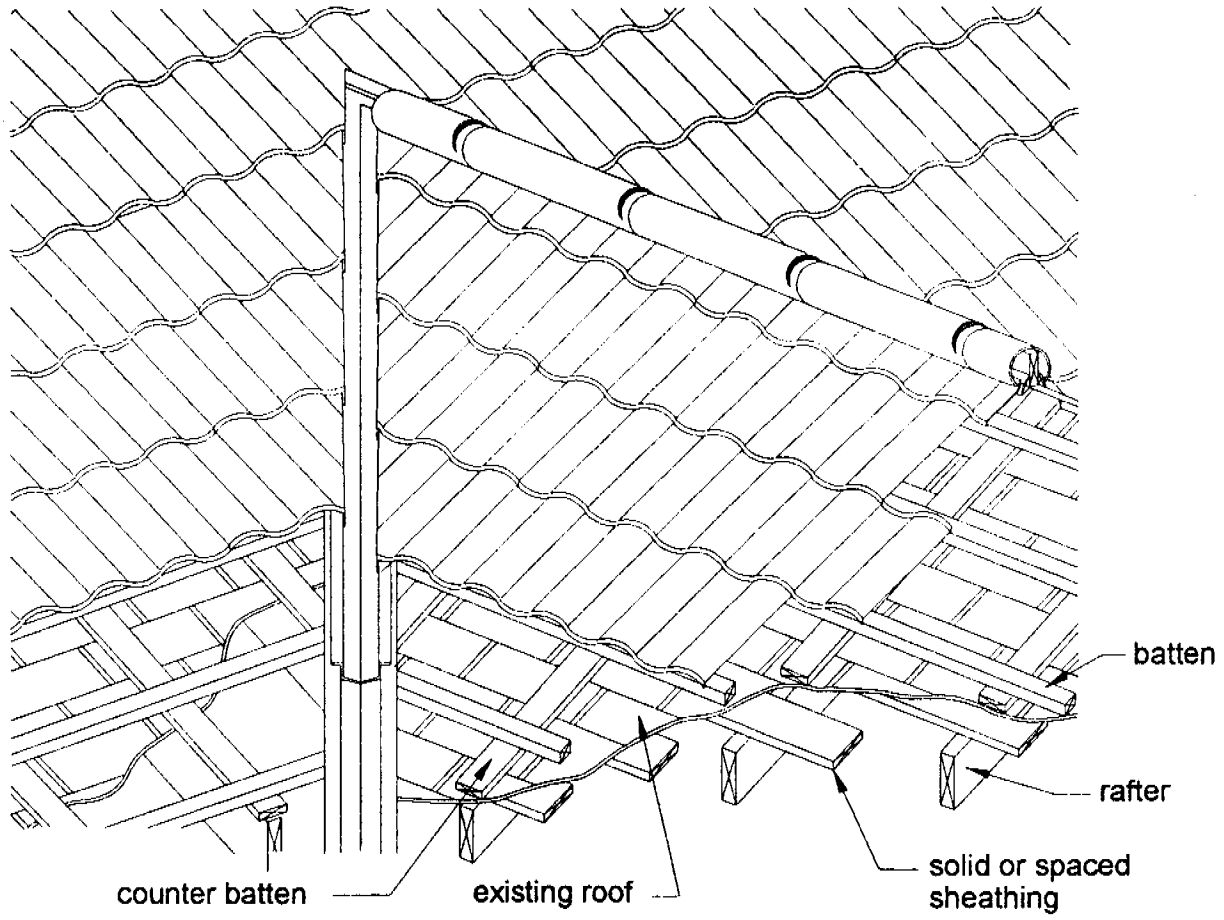


FIGURE 4—REROOFING OVER WOOD SHINGLES OR SHAKE