

# ICC-ES Evaluation Report

**ESR-1754**

Reissued November 2023

This report also contains:


- CBC Supplement

Subject to renewal November 2024

- LABC Supplement

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<p><b>DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION</b></p> <p><b>Section: 07 31 16—Metal Shingles</b></p> <p><b>Section: 07 32 19—Metal Roof Tiles</b></p>	<p><b>REPORT HOLDER: DECRA ROOFING SYSTEMS, INC.</b></p>	<p><b>EVALUATION SUBJECT: STEEL ROOFING PANELS: TILE PROFILE: DECRA VILLA TILE SHAKE PROFILE: DECRA SHAKE XD™ SHINGLE PROFILE: DECRA SHINGLE XD™ PANEL PROFILE: DECRA SHINGLE PLUS™</b></p>	
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## 1.0 EVALUATION SCOPE

### 1.1 Compliance with the following codes:

- 2021, 2018, 2015, 2012 and 2009 [International Building Code® \(IBC\)](#)
- 2021, 2018, 2015, 2012 and 2009 [International Residential Code® \(IRC\)](#)
- 2013 *Abu Dhabi International Building Code (ADIBC)*†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

For evaluation for compliance with codes adopted by [Los Angeles Department of Building and Safety \(LADBS\)](#), see [ESR-1754 LABC and LARC Supplement](#).

### Properties evaluated:

- Fire classification
- Wind resistance
- Weather resistance

### 1.2 Evaluation to the following green code:

2022 [California Green Building Standards Code \(CALGreen\)](#), Title 24, Part 11

### Attributes verified:

See Section 3.1

## 2.0 USES

The DECRA steel roofing panels are metal roof shingles complying with IBC Section 1507.5 and IRC Section R905.4 and are recognized for use as Class A, Class B or Class C roof coverings on new and over existing roofs, when installed in accordance with this report.

## 3.0 DESCRIPTION

### 3.1 General:

The steel roofing panels are pressure-formed from structural-quality sheet steel complying with ASTM A792, with an AZ50 class hot-dip aluminum-zinc alloy coating. The thickness of the coated steel is 0.017 inch (0.43 mm).

The installed weight of the steel roofing panels is 1.3 psf (6.3 kg/m<sup>2</sup>). See [Figure 1](#) for typical panel profiles.

Both sides of the steel roofing panels are treated with a corrosion-inhibiting coating. An opaque base coat of acrylic resin is applied to the top exposed surfaces, followed by embedment of colored stone granules. A clear acrylic glaze is then applied.

The attributes of the steel roofing panels have been verified as conforming to the requirements of CALGreen Section A5.406.1.2 for reduced maintenance. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. The code may provide supplemental information as guidance.

**3.1.1 DECRA Villa Tile:** The overall panel size of the Villa Tile profile is 17 inches (432 mm) by 44<sup>1</sup>/<sub>4</sub> inches (1124 mm), with an installed exposure of 14<sup>1</sup>/<sub>2</sub> inches (368 mm) by 39<sup>1</sup>/<sub>2</sub> inches (1003 mm). The panel has alternating concave pans and

convex crowns forming a Spanish clay tile appearance. The panel leading edge is bent down <sup>7</sup>/<sub>8</sub> inch (22.2 mm) with a <sup>3</sup>/<sub>8</sub> inch (9.5 mm) return for weather protection, interlocking and fastening purposes. The top back edge is bent vertically up <sup>7</sup>/<sub>8</sub> inch (22.2 mm), then lipped horizontally back 2<sup>1</sup>/<sub>4</sub> inches (57 mm).

**3.1.2 DECRA Shake XD™ and Shingle XD™:** The overall panel size of the Shake XD™ and Shingle XD™ profiles is 14<sup>1</sup>/<sub>8</sub> inches (359 mm) by 52<sup>1</sup>/<sub>8</sub> inches (1324 mm), with an installed exposure of 12<sup>3</sup>/<sub>8</sub> inches (314 mm) by 49<sup>7</sup>/<sub>8</sub> inches (1267 mm). Side panel laps are 2<sup>5</sup>/<sub>8</sub> inches (67 mm). The Shake XD™ panel has impressions forming individual irregular shake shapes across the panel with alternating heights and lengths. The Shingle XD™ panel has a step that forms two courses of raised and lowered sections that form a series of rectangular shingle shapes. The panel leading edges are bent to form a front clip which locks into the clip formed at the top back edge of each panel.

**3.1.3 DECRA Shingle Plus™:** The overall panel size of the Shingle Plus profile is 16<sup>1</sup>/<sub>2</sub> inches (419 mm) by 52 inches (1321 mm), with an installed exposure of 14<sup>1</sup>/<sub>2</sub> inches (371 mm) by 50 inches (1270 mm). Side panel laps are 2 inches (51 mm). The Shingle Plus™ profile consists of raised and lowered sections that form a series of rectangular shingle shapes. The panel leading edges are bent down 1 inch (25.4 mm) to provide an overlap for weather protection and nailing purposes.

### 3.2 Underlayment:

Underlayment must comply with 2021 and 2018 IBC Sections 1507.1.1 and 1507.5.3, 2015, 2012 and 2009 IBC Section 1507.5.3, 2021, 2018 and 2015 IRC Sections R905.1.1 and R905.4.3 or 2012 and 2009 IRC Section R905.4.3, as applicable.

### 3.3 Battens and Counterbattens:

Wood battens must be nominally 1-by-4 standard or utility-grade Douglas fir–larch or better, having a specific gravity of 0.50 or greater. Wood battens are attached to framing members spaced a maximum of 24 inches (610 mm) on center, and steel battens must be designed to resist the design loads. Counterbattens must be nominally 1-by-4 standard-grade Douglas fir–larch or better, having a specific gravity of 0.50 or greater.

### 3.4 Roof Slope:

**3.4.1** The Villa Tile and Shake XD™ panels must be installed on roofs with minimum slopes of at least 3:12 (25 percent). For roof slopes between 2:12 (16 percent) and less than 3:12 (25 percent), the panels are considered decorative and must be installed over a roof-covering system complying with the applicable code, subject to code official approval.

**3.4.2** Shingle XD™ must be installed on roofs with minimum slopes of at least 4:12 (33 percent). For roof slopes between 2:12 (16 percent) and less than 4:12 (25 percent), the panels are considered decorative and must be installed over a roof-covering system complying with the applicable code, subject to code official approval.

**3.4.3** Shingle Plus™ must be installed on roofs with minimum slopes of at least 3:12 (25 percent). For roof slopes between 2:12 (16 percent) and less than 3:12 (25 percent), the panels are considered decorative and must be installed over a roof covering system complying with the applicable code, subject to code official approval.

## 4.0 INSTALLATION

### 4.1 Installation—New Construction:

The panels must be installed directly on minimum  $1\frac{5}{32}$ -inch-thick (11.9 mm) plywood or on solid sheathing complying with the applicable code. Full panels must be placed and fastened starting at the eave.

Valleys must be flashed in accordance with IBC Section 1507.5.7 or IRC Section R905.4.6, as applicable. Other flashings must be in accordance with IBC Section 1503.2 or IRC Section R903.2, as applicable.

#### 4.1.1 DECRA Villa Tile:

**4.1.1.1 System 1:** Bird stop eave flashing is installed along the eave with corrosion-resistant No. 9 screws,  $1\frac{1}{2}$  inches (38 mm) long. The starter panel is installed by aligning panes of panel with valley of bird stop flashing and attaching panel to the fascia with one corrosion-resistant No. 9 screw,  $1\frac{1}{2}$  inches (38 mm) long, per pan flange. See System 1 in [Table 1](#) for panel fastening to deck.

Panels must be secured at hips and ridges after they have been mitered to match the framing lines. Panels must be cut and fit into valley flashing leaving an open valley. Trim pieces must be overlapped and fastened along the ridges, gable rakes, and hips with minimum No. 9,  $1\frac{1}{2}$ -inch-long (38 mm), corrosion-resistant screws.

**4.1.1.2 System 2:** At perimeter areas, such as eaves, rakes and ridges, defined as the end and corner zones of the roof in Figure 30.4-1 of ASCE 7-16 (2021 and 2018 IBC and IRC) [Figure 30.5-1 of ASCE 7-10 (2015 and 2012 IBC and IRC), Figure 6-3 of ASCE 7-05 (2009 IBC and IRC)], nominally 1-by-4 battens are installed running perpendicular to the roof slope. The first batten is placed  $1\frac{1}{2}$  inches (38 mm) up the slope from the roof eave. Battens are placed at a maximum spacing of  $14\frac{1}{2}$  inches (368 mm) on center. Wood battens are attached through wood deck to framing members with two No. 9 by  $2\frac{1}{2}$ -inch-long (64 mm), coated, all-purpose, exterior wood screws per intersection. Also, wood battens are attached to plywood deck with two No. 9 by  $2\frac{1}{2}$ -inch-long (64 mm), coated, all-purpose, exterior wood screws placed approximately 8 inches (203 mm) on center between framing member supports.

Bird stop eave flashing is installed along the eave with corrosion-resistant No. 9 screws,  $1\frac{1}{2}$  inches (38 mm) long. The starter panel is installed by aligning pan of panel with the valley of bird stop flashing and attaching the panel to the fascia with two corrosion-resistant No. 9 screws,  $1\frac{1}{2}$  inches (38 mm) long, per pan flange. See System 2 in [Table 1](#) for panel fastening to deck and battens.

#### 4.1.2 DECRA Shake XD™ and Shingle XD™:

**4.1.2.1 System 3:** A starter clip with drip edge is installed along the eave with corrosion-resistant minimum No. 9 screws,  $1\frac{1}{2}$  inches (38 mm) long. The panel is fastened at the back flange with five corrosion-resistant minimum No. 8 screws per panel into the prepunched holes. At perimeter areas, such as eaves, rakes and gables, defined as the end and corner zones of the roof in Figure 30.4-1 of ASCE 7-16 (2021 and 2018 IBC and IRC) [Figure 30.5-1 of ASCE 7-10 (2015 and 2012 IBC and IRC), Figure 6-3 of ASCE 7-05 (2009 IBC and IRC)], five corrosion-resistant minimum No. 9 screws,  $1\frac{1}{2}$  inches (38 mm) long, are added evenly spaced between the ends of the shingle for a total of 10 fasteners per shingle length.

On rakes and in roof-to-wall areas, panels are fitted into the gable or roof-to-wall channel. DECRA Roofing Systems valley flashing is installed and the panels are cut and slotted into either side of the valley flashing. Trim pieces must be overlapped and fastened along the ridges and hips with corrosion-resistant minimum No. 9 screws,  $1\frac{1}{2}$  inches (38 mm) long.

**4.1.2.2 System 4:** A starter clip with drip edge is installed along the eave with corrosion-resistant, 0.120-inch-diameter (3 mm), ring shank roofing nails,  $1\frac{1}{4}$  inches (32 mm) long with  $\frac{3}{8}$ -inch-diameter heads. The panel is fastened at the back flange with five corrosion-resistant, 0.120-inch-diameter (3 mm), ring shank roofing nails,  $1\frac{1}{4}$  inches long (32 mm) with  $\frac{3}{8}$ -inch-diameter heads per panel into the prepunched holes. At perimeter areas, such as eaves, rakes and gables, defined as the end and corner zones of the roof in Figure 30.4-1 of ASCE 7-16 (2021 and 2018 IBC and IRC) [Figure 30.5-1 of ASCE 7-10 (2015 and 2012 IBC and IRC), Figure 6-3 of ASCE 7-05 (2009 IBC and IRC)], five corrosion-resistant, 0.120-inch-diameter (3 mm), ring shank roofing nails,  $1\frac{1}{4}$  inches (32 mm) long with  $\frac{3}{8}$ -inch-diameter heads are spaced evenly between the ends of the shingle for a total of 10 fasteners per shingle length.

On rakes and in roof-to-wall areas, panels are fitted into the gable or roof-to-wall channel. DECRA Roofing Systems valley flashing is installed and the panels are cut and slotted into either side of the valley flashing. Trim pieces must be overlapped and fastened along the ridges and hips with corrosion-resistant, 0.120-inch-diameter (3 mm), ring shank roofing nails, 1<sup>1</sup>/<sub>4</sub> inches (32 mm) long.

#### 4.1.3 DECRA Shingle Plus:

**4.1.3.1 System 5:** At the eaves, a nominal 1 by 4 batten is installed at eave edge running perpendicular to the roof slope. Wood batten is attached through wood deck to framing members with two corrosion-resistant No. 8, 2<sup>1</sup>/<sub>2</sub>-inch-long (64 mm) exterior wood screws placed approximately 4 inches (102 mm) on center between framing member supports. The panel is fastened at the back flange with four corrosion-resistant minimum No. 8 screws, 1<sup>1</sup>/<sub>2</sub> inches (38 mm) long, evenly spaced between the ends of the shingle and four evenly spaced corrosion resistant minimum No. 8, 2<sup>1</sup>/<sub>2</sub>-inch-long (64 mm) exterior wood screws through the nose of the panel, so as to penetrate the back of the panel below, for a total of eight fasteners per shingle length.

On rakes and in roof-to-wall areas, panels are fitted into the gable and roof-to-wall channel. DECRA Roofing Systems valley flashing is installed and panels are cut and slotted into either side of the valley flashing. Trim pieces must be overlapped and fastened along the ridges and hips with corrosion-resistant minimum No. 10 screws, 1<sup>1</sup>/<sub>2</sub> inches (38 mm) long.

**4.1.3.2 System 6:** At the eaves, a nominal 1 by 4 batten is installed at eave edge running perpendicular to the roof slope. Wood batten is attached through wood deck to framing members with two corrosion-resistant No. 8, 2<sup>1</sup>/<sub>2</sub>-inch-long (64 mm) exterior wood screws placed approximately 4 inches (102 mm) on center between framing member supports). The panel is fastened at the back flange with eight corrosion-resistant minimum No. 8 screws, 1<sup>1</sup>/<sub>2</sub> inches (38 mm) long, evenly spaced between the ends of the shingle and eight evenly spaced corrosion resistant minimum No. 8, 2<sup>1</sup>/<sub>2</sub>-inch-long (64 mm) exterior wood screws through the nose of the panel, so as to penetrate the back of the panel below, for a total of eight fasteners per shingle length.

On rakes and in roof-to-wall areas, panels are fitted into the gable and roof-to-wall channel. DECRA Roofing Systems valley flashing is installed and panels are cut and slotted into either side of the valley flashing. Trim pieces must be overlapped and fastened along the ridges and hips with corrosion-resistant minimum No. 10 screws, 1 draft<sup>1</sup>/<sub>2</sub>-inches (38 mm) long.

#### 4.2 Installation—Reroofing:

**General:** When the existing roof covering must be completely removed, the panels must be installed in accordance with Section 4.1. The panels may be installed over existing spaced sheathing provided the space between boards is filled with lumber as necessary to provide a base for fastening. The fill lumber must be of the same thickness as the existing spaced sheathing. New flashing must be installed over and around all existing flashing, vents, valleys and chimneys in accordance with this report and the applicable code. The system may be installed over integral gutters, provided there is a fascia board (nailed to the rafters) installed outside the gutter.

**4.2.1 DECRA Villa Tile:** DECRA Villa steel roofing panels may be installed over existing asphalt shingle, built-up, wood shake or wood shingle roofs, provided the roof slope complies with Section 3.4 and the requirements of 2021 Section 1512, 2018 and 2015 IBC Section 1511 (2012 and 2009 IBC 1510) or 2021, 2018 and 2015 IRC Section R908 (2012 and 2009 IBC Section R907) are met.

For installation over existing asphalt shingle roofs and built-up roofs, the panels must be fastened through the existing roof to the roof deck in the same manner as described in Section 4.1.1 and as for Systems 1 and 2 in [Table 1](#), with screws of sufficient length to penetrate the deck a minimum of <sup>15</sup>/<sub>32</sub> inch (11.9 mm). Over existing built-up roofs, all loose gravel and debris must be swept off. Blisters in the plies must be cut and nailed flat. Raised perimeters, such as gravel stops, must be covered with the DECRA Villa Tile roofing system.

**4.2.2 DECRA Shake XD™ and Shingle XD™:** DECRA Shake XD™ and Shingle XD™ roofing panels may be installed over existing asphalt shingle and built-up roofs, provided the roof slope complies with Section 3.4 and the requirements of 2021 IBC Section 1512, 2018 and 2015 IBC Section 1511 (2012 and 2009 IBC Section 1510) or 2021, 2018 and 2015 IRC Section R908 (2012 and 2009 IRC Section R907) are met.

The panels must be fastened through the existing roof to the roof deck in the same manner as described in Section 4.1.2 and for System 3 or 4 in [Table 1](#), with nails or screws of sufficient length to penetrate the decking a minimum of <sup>15</sup>/<sub>32</sub> inch (11.9 mm). Over existing built-up roofs, all loose gravel and debris must be swept off.

Blisters in the plies must be cut and nailed flat. Raised perimeters, such as gravel stops, must be covered with the DECRA Shake XD™ and Shingle XD™ roofing system.

**4.2.3 DECRA Shingle Plus™:** DECRA Shingle Plus™ roof panels may be installed over existing wood shake, wood shingle, asphalt shingle or built-up roofs, provided the roof slope complies with Section 3.4.3 and the requirements of 2021 IBC Section 1512, 2018 and 2015 IBC Section 1511 (2012 and 2009 IBC Section 1510) or 2021, 2018 and 2015 IRC Section R908 (2012 and 2009 IRC Section R907) are met.

For installation over existing asphalt shingle roofs and built-up roofs, the panels must be fastened through the existing roof to the roof deck in the same manner as described in Section 4.1.3 and as for System 5 or 6 in [Table 1](#), with screws of sufficient length to penetrate the deck a minimum of <sup>15</sup>/<sub>32</sub>-inch (11.9 mm). Over existing built-up roofs, all loose gravel and debris must be swept off. Blisters in the plies must be cut and nailed flat. Raised perimeters, such as gravel stops, must be covered with the DECRA Shingle Plus™ roofing system.

#### 4.3 Fire Classification:

**4.3.1 New Construction:** Roof covering systems, described in [Table 2](#), when installed in accordance with Section 4.1 of this report, are classified as a Class A, Class B or Class C roof covering system in accordance with ASTM E108 or UL 790.

**4.3.2 Existing Construction:** Reroofing systems, when installed in accordance with Section 4.2 of this report with the barrier board and/or underlayment specified in [Table 2](#), are classified as a Class A, Class B or Class C roof covering system in accordance with ASTM E108 or UL 790.

#### 4.4 Wind Resistance:

DECRA steel roofing panels installed as described in this report are acceptable for the maximum allowable uplift loads specified in [Table 1](#). Positive loads must be limited to the adequacy of the structural framing and sheathing.

The sheathing, battens and counterbattens, and their attachment to framing, must be designed for the applied wind loads.

## 5.0 CONDITIONS OF USE:

The DECRA Roofing Systems, Inc., steel roofing panels described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Panels must be manufactured, identified and installed in accordance with this report and the manufacturer's published installation instructions. In the event of conflict between this report and the manufacturer's installation instructions, this report governs.
- 5.2 The roof sheathing must be designed for the appropriate loads determined in accordance with the applicable code, subject to the approval of the code official. The design of the roof sheathing must be prepared by a registered design professional when required by the statutes of the jurisdiction in which the project is located.
- 5.3 The roofing panels are manufactured in Corona, California, under a quality control program with inspections by ICC-ES.

## 6.0 EVIDENCE SUBMITTED

Data in accordance with the [ICC-ES Acceptance Criteria for Metal Roof Coverings \(AC166\)](#), dated February 2021.

## 7.0 IDENTIFICATION

- 7.1 Product labeling shall include, the name of the report holder or listee, and the ICC-ES mark of conformity. The listing or evaluation report number (ICC-ES ESR-1754) may be used in lieu of the mark of conformity. A label bearing the manufacturer's name (DECRA Roofing Systems, Inc.) and address, the product name, and the evaluation report number (ESR-1754) is affixed to each pallet or bundle.
- 7.2 The report holder's contact information is the following:

**DECRA ROOFING SYSTEMS, INC.**  
**1230 RAILROAD STREET**  
**CORONA, CALIFORNIA 92882**  
**(951) 272-8180**  
[www.decra.com](http://www.decra.com)  
[marketing@decra.com](mailto:marketing@decra.com)

TABLE 1—MAXIMUM ALLOWABLE WIND UPLIFT PRESSURES ON DECRA ROOFING PANELS

SYSTEM NO.	ROOFING PANEL	PANEL FASTENING <sup>1</sup>		ALLOWABLE WIND UPLIFT PRESSURE (psf)
1 (New construction or reroofing on existing asphalt shingles or built-up roofs - See Section 4.1.1.1)	Villa Tile	Field <sup>2</sup> and perimeter <sup>3</sup>	One #9 sheet metal screw per panel tab.	52
2 (New construction or reroofing on existing asphalt shingles or built-up roofs - See Section 4.1.1.2)	Villa Tile	Field <sup>2</sup>	One #12 sheet metal screw per panel tab.	64
		Perimeter <sup>3</sup>	Three #12 sheet metal screws per panel tab and two #8 by 3/4-inch-long sheet metal screws through bent leading edge into bent rear edge of preceding course.	146
3 (New construction or reroofing on existing asphalt shingles or built-up roofs - See Section 4.1.2.1)	Shake XD™ or Shingle XD™	Field	Five #9 sheet metal screws into pre-punched holes.	78
		Perimeter	Five #9 sheet metal screws into pre-punched holes plus 5 #8 sheet metal screws evenly spaced between the ends of the shingle (10 screws total per shingle length).	154
4 (New construction or reroofing on existing asphalt shingles or built-up roofs - See Section 4.1.2.2)	Shake XD™ or Shingle XD™	Field	Five corrosion-resistant, 0.120-inch-diameter, ring shank roofing nails, 1 1/4-inch-long with 3/8-inch-diameter heads into pre-punched holes.	45
		Perimeter	Five corrosion-resistant, 0.120-inch-diameter, ring shank roofing nails, 1 1/4-inch-long with 3/8-inch-diameter heads into pre-punched holes plus five corrosion-resistant, 0.120-inch-diameter, ring shank roofing nails, 1 1/4-inch-long with 3/8-inch-diameter heads spaced evenly between the ends of the shingle (10 nails total per shingle length).	75
5 (New construction or reroofing on existing asphalt shingles or built-up roofs - See Section 4.1.3.1)	Shingle Plus	Field and Perimeter	Four #8 by 1 1/2-inch-long hex head sheet metal screws evenly spaced along the nose of the panel and four #8 by 1 1/2-inch-long sheet metal screws through back flange into the sheathing.	38
6 (New construction or reroofing on existing asphalt shingles or built-up roofs - See Section 4.1.3.1)	Shingle Plus	Field and Perimeter	Eight #10 by 1 1/2-inch-long hex head sheet metal screws evenly spaced along the nose of the panel and eight #10 by 1 1/2-inch-long sheet metal screws through back flange into the sheathing.	98

For SI: 1 inch = 25.4 mm; 1 psf = 48 Pa.

<sup>1</sup>All fasteners must be corrosion-resistant. Nails must comply with ASTM F1667. Wood screws must comply with ANSI/ASME Standard B18.6.1. Sheet metal screws must comply with ANSI/ASME Standard B18.6.4.

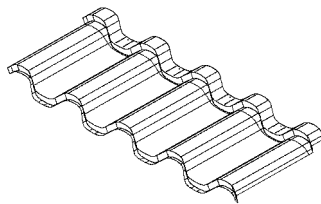
<sup>2</sup>Field area refers to the interior zone of the roof as defined in Figure 30.4-1 of ASCE 7-16 (2021 and 2018 IBC and IRC), Figure 30.5-1 of ASCE 7-10 (2012 IBC and IRC) or Figure 6-3, Chapter 6 of ASCE 7-05 (2009 IBC and IRC), Minimum Design Loads for Buildings and Other Structures.

<sup>3</sup>Perimeter area refers to the end and corner zones of the roof as defined in Figure 30.4-1 of ASCE 7-16 (2021 and 2018 IBC and IRC), Figure 30.5-1 of ASCE 7-10 (2015 and 2012 IBC and IRC) or Figure 6-3, Chapter 6 of ASCE 7-05 (2009 IBC and IRC), Minimum Design Loads for Buildings and Other Structures

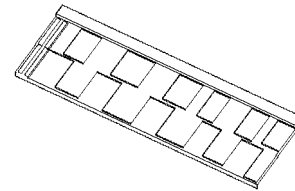
TABLE 2—FIRE CLASSIFICATION ASSEMBLIES

SYSTEM NO.	ROOF CLASS	SUBSTRATE	MAX. ROOF SLOPE	BARRIER BOARD	UNDERLAYMENT	ROOF PANEL
1	A	15/32-inch plywood	Unlimited	None	GAF VersaShield® Fire Resistant Roof Deck Protection ( <a href="#">ESR-2053</a> ), mechanically fastened.	DECRA Villa Tile, Shake XD, Shingle XD or Shingle Plus.
2	A	15/32-inch plywood	Unlimited	Minimum 1/2-inch-thick UL Classified gypsum board or minimum 1/4-inch-thick G-P Gypsum DensDeck® Roof Board	Any UL-classified underlayment	DECRA Villa Tile, Shingle Plus, Shake XD or Shingle XD.
3	B	15/32-inch plywood	Unlimited	None	Two layers of ASTM D226, Type II (No. 30) underlayment	DECRA Villa Tile, Shake XD, Shingle XD or Shingle Plus.
4	C	15/32-inch plywood	Unlimited	None	Any UL-classified underlayment	DECRA Villa Tile, Shake XD, Shingle XD or Shingle Plus.

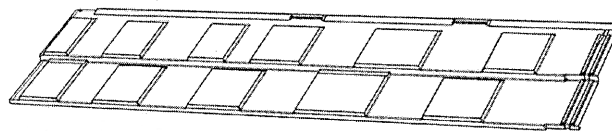
For SI: 1 inch = 25.4 mm.



DECRA Villa Tile



DECRA Shingle Plus



DECRA Shingle XD

FIGURE 1—TYPICAL PANEL PROFILES

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
**Section: 07 31 16—Metal Shingles**  
**Section: 07 32 19—Metal Roof Tiles**

**REPORT HOLDER:**

DECRA ROOFING SYSTEMS, INC.

**EVALUATION SUBJECT:**

**STEEL ROOFING PANELS:**  
**TILE PROFILE: DECRA VILLA TILE**  
**SHAKE PROFILE: DECRA SHAKE XD™**  
**SHINGLE PROFILE: DECRA SHINGLE XD™**  
**PANEL PROFILE: DECRA SHINGLE PLUS™**

**1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that DECRA Roofing Systems, Inc. Steel Roofing Panels, described in ICC-ES evaluation report ESR-1754, have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

**Applicable code editions:**

- 2020 *City of Los Angeles Building Code* (LABC)
- 2020 *City of Los Angeles Residential Code* (LARC)

**2.0 CONCLUSIONS**

The DECRA Roofing Systems, Inc. Steel Roofing Panels, described in Sections 2.0 through 7.0 of the evaluation report [ESR-1754](#), comply with the LABC Chapters 7A and 15, the LARC Section R337 and LARC Chapter 9, and are subjected to the conditions of use described in this supplement.

**3.0 CONDITIONS OF USE**

The DECRA Roofing Systems, Inc. Steel Roofing Panels, described in this evaluation report must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-1754](#).
- The design, installation, conditions of use and identification are in accordance with the 2018 *International Building Code*® (IBC) and 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report [ESR-1754](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- The DECRA Roofing Systems, Inc. Steel Roofing Panels must not be installed over existing wood shakes or wood shingles in accordance with LABC Section 1511.
- The installation of the DECRA Roofing Systems, Inc. Steel Roofing Panels must comply with City of Los Angeles Information Bulletin P/BC 2020-16, "Dwellings in High Wind Velocity Areas (HWA)".
- Reroofing applications must comply with Section 4.2 or Sections 4.2 and 4.3.2 of the evaluation report [ESR-1754](#) and LABC Section 1511 or LARC Section R908, as applicable.



- The DECRA Roofing Systems, Inc. Steel Roofing Panels may be used in the construction of new buildings located in any Fire Hazard Severity Zone within a State Responsibility Areas or any Wildland-Urban Interface Fire Area, provided installation is in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of Sections 701A.3 and 705A of the LABC.
- The DECRA Roofing Systems, Inc. Steel Roofing Panels may be used in the construction of new buildings located in any Fire Hazard Severity Zone within a State Responsibility Areas or any Wildland-Urban Interface Fire Area, provided installation is in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of Sections R337.1.3.1 and R337.5 of the LARC.

This supplement expires concurrently with the evaluation report, reissued November 2023.

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
**Section: 07 31 16—Metal Shingles**  
**Section: 07 32 19—Metal Roof Tiles**

**REPORT HOLDER:**

DECRA ROOFING SYSTEMS, INC.

**EVALUATION SUBJECT:**

**STEEL ROOFING PANELS:**  
**TILE PROFILE: DECRA VILLA TILE**  
**SHAKE PROFILE: DECRA SHAKE XD™**  
**SHINGLE PROFILE: DECRA SHINGLE XD™**  
**PANEL PROFILE: DECRA SHINGLE PLUS™**

**1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that DECRA steel roofing panels described in ICC-ES evaluation report ESR-1754 have also been evaluated for compliance with the codes noted below.

**Applicable code editions:**

- 2022 and 2019 *California Building Code (CBC)*

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 and 2019 *California Residential Code (CRC)*

**2.0 CONCLUSIONS****2.1. CBC:**

The DECRA steel roofing panels described in Sections 2.0 through 7.0 of the evaluation report, ESR-1754, may be used where the CBC requires a Class A roof covering complying with 2022 or 2019 CBC Section 1505.1.1, a Class B roof covering complying with 2019 CBC Section 1505.1.2, or a Class C roof covering complying with 2022 CBC Section 1505.1.2 or 2019 CBC Section 1505.1.3, provided the design and installation are in accordance with the 2021 or 2018 *International Building Code*® (IBC) provisions noted in the evaluation report, as applicable.

The roofing panels may be used in the construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area, provided installation is in accordance with the 2021 or 2018 *International Building Code*® (IBC) provisions, as applicable, noted in the evaluation report and the additional requirements of Sections 701A.3 and 705A of the CBC.

**2.1.1. OSHPD:**

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

**2.1.2. DSA:**

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

**2.2. CRC**

The DECRA steel roofing panels described in Sections 2.0 through 7.0 of the evaluation report, ESR-1754, may be used where the CRC requires a Class A roof cover complying with 2022 or 2019 CRC Section R902.1.1, a Class B roof covering complying with 2019 CRC Section R902.1.2, or a Class C roof covering complying with 2022 CRC Section R902.1.2 or 2019 CRC Section

R902.1.3, provided the design and installation are in accordance with the 2021 or 2018 *International Residential Code*® (IRC) provisions evaluation report and the additional requirements of CRC Section R905.4, as applicable.

The roofing panels may be used in the construction of new buildings located in any Fire Hazard Severity Zone within a State Responsibility Areas or Wildland–Urban Interface Fire Area, provided installation is in accordance with the 2021 or 2018 *International Residential Code*® (IRC) provisions, as applicable, noted in the evaluation report and the additional requirements of Sections R337.1.3.1 and R337.5 of the CRC.

The products described in this supplement have not been evaluated for compliance with the *International Wildland–Urban Interface Code*®.

This supplement expires concurrently with the evaluation report, reissued November 2023.