

ICC-ES Evaluation Report

ESR-5645

Reissued October 2025

Subject to renewal October 2026

This report also contains:

- [City of Chicago Supplement](#)
- [City Of LA Supplement](#)
- [CA Supplement w/ Exterior Wildlife Exposure](#)
- [FL Supplement w/ HVHZ](#)
- [International Wildlife-Urban Interface Supplement](#)
- [OR Supplement](#)

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<p>DIVISION: 07 00 00 — THERMAL AND MOISTURE PROTECTION</p> <p>Section: 07 72 26 — Ridge Vents</p>	<p>REPORT HOLDER: O'HAGIN MANUFACTURING, LLC</p>	<p>EVALUATION SUBJECT: O'HAGIN CRS LOW PROFILE TAPERED VENT FOR METAL ROOFS (CLIMATE RESISTANT SERIES (CRS), FIRE & ICE OR WEATHERMASTER)</p>	
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1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018 and 2015 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018 and 2015 [International Residential Code® \(IRC\)](#)

Properties evaluated:

- Net-free ventilation area
- Weather resistance
- Wind uplift resistance

2.0 USES

O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster) are attic vents installed in conjunction with eave, cornice or soffit vents, to provide natural ventilation of enclosed attic and rafter spaces in accordance with 2024, 2021, and 2018 IBC Section 1202.2 (2015 IBC Section 1203.2) or IRC Section R806, as applicable. The vents are intended for use with code-complying metal roofs.

3.0 DESCRIPTION

3.1 General:

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs is a noncombustible, corrosion-resistant vent with a square steel wire mesh opening measuring 1/4-inch (6.3 mm) or 1/8-inch (3.2 mm). The Climate Resistant Series (CRS), Fire & Ice and WeatherMaster are regional tradenames for the same product. The vent covers are constructed from 0.0159-inch (0.41 mm) to 0.0239-inch (0.61 mm) steel conforming to ASTM A653 G-90, 0.032-inch-thick (0.8 mm) aluminum conforming to ASTM B209, or 16 oz./square foot copper in accordance with IBC Table 1507.4.3.(1) and IRC Table R905.10.3(2). See [Figure 1](#) for additional details.

3.2 Net Free Ventilation Area:

The net-free ventilation area through the O'Hagin CRS Low Profile Tapered Vent is 78 square inches (503 cm²).

4.0 DESIGN AND INSTALLATION

4.1 Design:

The required ventilation area must be determined, and sufficient ventilating must be installed to provide ventilation in accordance with 2024, 2021 and 2018 IBC Section 1202.2 (2015 IBC Section 1203.2) and IRC Section R806. Each vent must be marked with the venting area it provides when installed in accordance with this report.

4.2 Installation:

Installation of O'Hagin CRS Low Profile Tapered Vent for Metal Roofs must comply with this report, the manufacturer's published installation instructions and the requirements of the applicable code. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

O'Hagin CRS Low Profile Tapered Vent for Metal Roofs may be used where the minimum roof slope is 3 units vertical and 12 units horizontal (25 percent). Mark and cut the seam 20.5-inches (521 mm) apart, unfold cut seam and flatten to roof deck, continue this cut for 14-inches (356 mm) horizontally across the roof panel in opposite directions of the seam. Mark the outline of the vent for placement and mark the 11-inch (279 mm) x 11-inch (279 mm) hole in roof panels 4.5-inches (114 mm) from the seam (half of the hole is removed from each roof panel). Cut opening through the roof sheathing, with blade set to thickness of roof sheathing. Seal by overlapping approved butyl tape around all four sides of wire mesh vent opening as well as the outer flange. No tape on upper flange of vent. Place rear flange of vent through the 28-inch (711 mm) cut underneath the upper roof panels, using previously marked outline as a guide until the seam touches the rear lip of the vent cover. Lower vent directly over 11-inch (279 mm) x 11-inch (279 mm) hole on top of the roof panels, the front diverter should come in contact with lower seam. Apply approved butyl tape across the entire 28-inch (711 mm) cut where the roof panel overlaps the upper flange of the vent. Secure at 3-inch (76 mm) centers, using corrosion-resistant approved metal roofing screws of sufficient length to penetrate the roof deck sheathing. Seal upper and lower seams, and metal roof panels overlapping top vent flange and diverter on top of metal roof panels, using approved sealant. The vents are installed directly to the roof deck and the metal roof panels.

4.3 Wind Resistance:

Under the 2024 IBC, when installation is in accordance with this report, the attic vents are limited to use in areas subject to a maximum basic wind speed of 130 mph (209 km/hr) on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure D areas.

Under the 2021 and 2018 IBC, when installation is in accordance with this report, the attic vents are limited to use in areas subject to a maximum basic design wind speed of 130 mph (209 km/hr) on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure D areas.

Under the 2015 IBC and 2024, 2021 and 2018 IBC, when installation is in accordance with this report, the attic vents are limited to use in areas subject to a maximum ultimate design wind speed of 130 mph (209 km/hr) on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure D areas.

5.0 CONDITIONS OF USE:

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs 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 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 The vents must be limited to installation on roofs with the minimum slope of 3 units vertical and 12 units horizontal (25 percent).
- 5.3 Intake vents must be installed within the lower $\frac{1}{3}$ rd of the attic, a minimum of 6 inches (152mm) above the attic insulation.
- 5.4 Exhaust vents must be installed within 3 feet (914.4mm) of the ridge or at the highest point of the attic or rafter space.
- 5.5 The vents must be installed with metal roof coverings that comply with the requirements of the applicable code.

- 5.6 The vents are limited to use on roofs where nonclassified roof coverings or fire-classified roof coverings are permitted.
- 5.7 The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs are manufactured under a quality control program with inspection by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the [ICC-ES Acceptance Criteria for Attic Vents \(AC132\)](#), dated February 2010 (editorially revised November 2024).

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5645) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 In addition, the O'Hagin CRS Low Profile Tapered Vent for Metal Roofs are identified with the address, the product name (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), the installation instructions, and the net-free ventilation area.
- 7.3 The report holder's contact information is the following:

O'HAGIN MANUFACTURING, LLC
210 CLASSIC COURT
SUITE 100
ROHNERT PARK, CALIFORNIA 94928
(877) 324-0444
www.ohagin.com



FIGURE 1—O'HAGIN CRS LOW PROFILE VENT FOR METAL ROOFS

DIVISION: 07 00 00 — THERMAL AND MOISTURE PROTECTION
Section: 07 72 26 – Ridge Vents

REPORT HOLDER:

O'HAGIN MANUFACTURING, LLC

EVALUATION SUBJECT:

O'HAGIN CRS LOW PROFILE TAPERED VENT FOR METAL ROOFS (CLIMATE RESISTANT SERIES (CRS), FIRE & ICE OR WEATHERMASTER)

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in ICC-ES evaluation report [ESR-5645](#), have also been evaluated for compliance with the Chicago Construction Codes (Title 14 of the Chicago Municipal Code) as noted below.

Applicable code editions:

- 2019 *Chicago Building Code* (Title 14B)

2.0 CONCLUSIONS

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in Sections 2.0 through 7.0 of the evaluation report [ESR-5645](#), comply with Title 14B, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster) described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-5645](#).
- The design, installation, conditions of use and identification of the O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-5645](#), except the Exception to Section 1202.2.1 of Title 14B applies in lieu of the Exception to Section 1202.2.1 of the 2018 IBC.
- The design, installation and inspection are in accordance with additional requirements of Chapters 16 and 17 of Title 14B, as applicable.

This supplement expires concurrently with the evaluation report, issued October 2025.

DIVISION: 07 00 00 — THERMAL AND MOISTURE PROTECTION

Section: 07 72 26 – Ridge Vents

REPORT HOLDER:

O'HAGIN MANUFACTURING, LLC

EVALUATION SUBJECT:

O'HAGIN CRS LOW PROFILE TAPERED VENT FOR METAL ROOFS (CLIMATE RESISTANT SERIES (CRS), FIRE & ICE OR WEATHERMASTER)

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in ICC-ES evaluation report [ESR-5645](#), 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:

- 2023 City of Los Angeles Building Code ([LABC](#))
- 2023 City of Los Angeles Residential Code ([LARC](#))

2.0 CONCLUSIONS

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in Sections 2.0 through 7.0 of the evaluation report [ESR-5645](#), comply with the LABC Section 1202.2, and the LARC Section R806, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-5645](#).
- The design, installation, conditions of use and identification of the O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster) are in accordance with the 2021 *International Building Code*® (IBC) and 2021 *International Residential Code*® (IRC) provisions, as applicable, noted in the evaluation report [ESR-5645](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapter 12 and LARC Section R806, as applicable.
- The off-ridge vent has been evaluated under CBC Section 706A.2.1 for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.
- The off-ridge vent has been evaluated under CRC Section R337.6.2.1 for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

This supplement expires concurrently with the evaluation report, issued October 2025.

DIVISION: 07 00 00 — THERMAL AND MOISTURE PROTECTION

Section: 07 72 26 – Ridge Vents

REPORT HOLDER:

O’HAGIN MANUFACTURING, LLC

EVALUATION SUBJECT:

O’HAGIN CRS LOW PROFILE TAPERED VENT FOR METAL ROOFS (CLIMATE RESISTANT SERIES (CRS), FIRE & ICE OR WEATHERMASTER)

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that O’Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in ICC-ES evaluation report [ESR-5645](#), have also been evaluated for compliance with the code(s) noted below.

Applicable code edition(s):

- 2025 and 2022 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.

- 2025 and 2022 California Residential Code (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The O’Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in Sections 2.0 through 7.0 of the evaluation report [ESR-5645](#), comply with CBC Section 1202.2, provided the design and installation are in accordance with the 2024 and 2021 *International Building Code*® (IBC) provisions, as applicable, noted in the evaluation report and the additional requirements of CBC Chapter 12, as applicable.

The off-ridge vent has been evaluated under 2022 CBC Section 706A.2.1 and the 2025 CA Wildland-Urban Interface Code Section 504.10.2 (as referenced in the 2025 CBC Chapter 7A) for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

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 O’Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in Sections 2.0 through 7.0 of the evaluation report [ESR-5645](#), comply with CRC Section R806, provided the design and installation are in accordance with the 2024 and 2021 *International Residential Code*® (IRC) provisions, as applicable, noted in the evaluation report and the additional requirements of CRC Chapter 8, as applicable.

The off-ridge vent has been evaluated under 2022 CRC Section R337.6.2.1 and the 2025 CA Wildland-Urban Interface Code Section 504.10.2 (as referenced in the 2025 CRC Section R337) for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), recognized in ICC-ES evaluation report [ESR-5645](#), has also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2023 Florida Building Code—Building
- 2023 Florida Building Code—Residential

2.0 CONCLUSIONS

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in Sections 2.0 through 7.0 of ICC-ES evaluation report [ESR-5645](#), complies with the *Florida Building Code—Building* and *Florida Building Code—Residential*. The design requirements shall be determined in accordance with the *Florida Building Code-Building* or the *Florida Building Code-Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-5644 for the 2021 *International Building Code*® meet the requirements of the *Florida Building Code-Building* or the *Florida Building Code-Residential*, as applicable, with the following conditions:

- The required ventilation area must be determined, and sufficient ventilation must be installed to provide ventilation in accordance with FBC Section 1203.2 or FRC Section R806, as applicable.
- The vent covers are constructed from 0.0159-inch (0.41 mm) to 0.0239-inch (0.61 mm) steel conforming to ASTM A653 G-90, 0.032-inch aluminum, or 16 oz copper in accordance with FBC Table 1507.4.3.(1) and FRC Table R905.4.4.

Use of the O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster) has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code-Building* or the *Florida Building Code-Residential*.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission). Florida Rule 61G20-3 is applicable to products and/or systems which comprise the building envelope and structural frame for compliance with the structural requirements of the Florida Building Code.

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The purpose of this evaluation report supplement is to indicate that O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in ICC-ES evaluation report [ESR-5645](#), has also been evaluated for compliance with the codes noted below:

Applicable code editions:

- 2024, 2021, 2018 and 2015 *International Wildland-Urban Interface Code (IWUIC)*

2.0 CONCLUSIONS

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster) described in Sections 2.0 through 7.0 of the evaluation report [ESR-5645](#), may be used in the design and construction of new buildings located in any Wildland-Urban Interface Area based on compliance with 2024 Sections 504.10.2, 505.10.2 and 506.5 (2021, 2018, and 2015 Sections 504.10 and 505.10) of the *International Wildland-Urban Interface Code (IWUIC)*. The design and installation are in accordance with the *International Wildland-Urban Interface Code (IWUIC)* and the *International Building Code*® (IBC) provisions noted in the evaluation report, as applicable, with the following conditions:

- The required ventilation area must be determined, and sufficient ventilation must be installed, to provide ventilation in accordance with 2024 IWUIC Sections 504.10.2, 505.10.2 and 506.5 and 2021, 2018, and 2015 IWUIC Sections 504.10 and 505.10, as applicable.
- The vent covers are constructed from 0.0159-inch (0.41 mm) to 0.0239-inch (0.61 mm) steel conforming to ASTM A653 G-90, 0.032-inch-thick (0.8 mm) aluminum conforming to ASTM B209, or 16 oz./square foot copper in accordance with IBC Table 1507.4.3.(1).

This supplement expires concurrently with the evaluation report [ESR-5645](#), issued October 2025.

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Applicable code editions:

- 2022 Oregon Structural Specialty Code (OSSC)

2.0 CONCLUSIONS

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster), described in Sections 2.0 through 7.0 of the ICC-ES evaluation report [ESR-5645](#), complies with the OSSC Chapter 12, and is subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster) described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-5645](#).
- The design, installation, conditions of use and identification of the O'Hagin CRS Low Profile Tapered Vent for Metal Roofs (Climate Resistant Series (CRS), Fire & Ice or WeatherMaster) are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the ICC-ES evaluation report [ESR-5645](#).
- The design and installation are in accordance with additional requirements of OSSC Chapters 12 and 16, as applicable.

This supplement expires concurrently with the evaluation report, issued October 2025.