

DEPARTMENT OF HOMELAND SECURITY  
Federal Emergency Management Agency  
**ELEVATION CERTIFICATE**

**IMPORTANT: FOLLOW THE INSTRUCTIONS ON PAGES 9-16**

OMB Control Number: 1660-0008  
Expiration: 11/30/2018

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A - PROPERTY INFORMATION		FORM INSURANCE COMPANY USE
A1. Building Owner's Name <i>KAREN M. &amp; PAUL C. FALCO</i>		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <i># 64 FOREST AVENUE</i>		Company NAIC Number:
City <i>KEANSBURG</i>	State <i>N. J.</i>	Zip Code <i>07734</i>
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)		
A4. Building Use (e.g., <u>Residential</u> , Non-Residential, Addition, Accessory, etc.)		
A5. Latitude/Longitude: Lat. <i>40.45°</i> Long. <i>-74.17°</i> Horizontal Datum: <input type="radio"/> NAD 1927 <input type="radio"/> NAD 1983		
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number <u>7</u>		
A8. For a building with a crawlspace or enclosure(s):		A9. For a building with an attached garage:
a) Square footage of crawlspace or enclosure(s) _____ sq ft	a) Square footage of attached garage <u>1210</u> sq ft	
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____	b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>7</u>	
c) Total net area of flood openings in A8.b _____ sq in	c) Total net area of flood openings in A9.b <u>1400</u> sq in	
d) Engineered flood openings? <input type="radio"/> Yes <input type="radio"/> No	d) Engineered flood openings? <input checked="" type="radio"/> Yes <input type="radio"/> No	
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION		
B1. NFIP Community Name & Community Number <i>KEANSBURG 340303</i>		B2. County Name <i>MONMOUTH</i>
		B3. State <i>N. J.</i>
B4. Map/Panel Number <i>34025C0034</i>	B5. Suffix <i>G</i>	B6. FIRM Index Date <i>4/3/13</i>
B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s) <i>AE</i>	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) <i>11.0</i>
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="radio"/> FIS Profile <input checked="" type="radio"/> FIRM <input type="radio"/> Community Determined <input type="radio"/> Other/Source: _____		
B11. Indicate elevation datum used for BFE in Item B9: <input type="radio"/> NGVD 1929 <input checked="" type="radio"/> NAVD 1988 <input type="radio"/> Other/Source: _____		
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="radio"/> Yes <input type="radio"/> No Designation Date: <input type="radio"/> CBRS <input type="radio"/> OPA		
SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)		
C1. Building elevations are based on: <input type="radio"/> Construction Drawings* <input type="radio"/> Building Under Construction* <input checked="" type="radio"/> Finished Construction		
C2. Elevations - Zones A1 - A30, AE, AH, A (with BFE), VE, V1 - V30, V (with BFE), AR, AR/A, AR/AE, AR/A1 - A30, AR/AH, AR/AO. Complete Items C2.a - h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters. * A new Elevation Certificate will be required when construction of the building is complete.		
Benchmark Utilized: <i>MON LV0739</i> Vertical Datum: <i>1988</i>		
Indicate elevation datum used for the elevations in items a) through h) below. <input type="radio"/> NGVD 1929 <input checked="" type="radio"/> NAVD 1988 <input type="radio"/> Other/Source: _____		
Datum used for building elevations must be the same as that used for the BFE.		
		Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	<u>6</u> - <u>7</u>	<input checked="" type="radio"/> feet <input type="radio"/> meters
b) Top of the next higher floor	<u>17</u> - <u>1</u>	<input checked="" type="radio"/> feet <input type="radio"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	_____ - _____	<input type="radio"/> feet <input type="radio"/> meters
d) Attached garage (top of slab)	<u>6</u> - <u>7</u>	<input checked="" type="radio"/> feet <input type="radio"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	<u>16</u> - <u>0</u>	<input checked="" type="radio"/> feet <input type="radio"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	<u>6</u> - <u>1</u>	<input checked="" type="radio"/> feet <input type="radio"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	<u>6</u> - <u>3</u>	<input checked="" type="radio"/> feet <input type="radio"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	_____ - _____	<input type="radio"/> feet <input type="radio"/> meters

# ELEVATION CERTIFICATE

OMB Control Number: 1660-0008  
Expiration: 11/30/2018

## SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Check here if attachments. Were latitude and longitude in Section A provided by a licensed land surveyor?  
 Yes  No

Certifier's Name <i>LEO A. KALIETA</i>		License Number <i>31268</i>	
Title <i>LAND SURVEYOR</i>	Company Name <i>LEO A KALIETA &amp; Co</i>		
Address <i>20 MIDDLESEX RD.</i>	City <i>MATAWAN</i>	State <i>N.J.</i>	Zip Code <i>07747</i>
Signature <i>Leo A. Kalietz</i>	Date <i>REV 8/24/10</i> <i>8/15/10</i>	Telephone <i>732-583-9155</i>	

PLACE  
SEAL  
HERE

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)"

*AB. d) SMARTVENTS MODEL #1540-520*  
*C2. e) AIR CONDITIONER COMPRESSOR*

Signature \_\_\_\_\_ Date \_\_\_\_\_

## SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1 -E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1 -E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ - \_\_\_\_\_  feet  meters  above or  below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ - \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6 -9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8 -9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_ - \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_ - \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and /or equipment servicing the building is \_\_\_\_\_ - \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance?  Yes  No  Unknown. The local official must certify this information in Section G.

## SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name: \_\_\_\_\_

Address _____	City _____	State _____	ZIP Code _____
Signature _____	Date _____	Telephone _____	

Comments \_\_\_\_\_

Check here if attachments.

**ELEVATION CERTIFICATE**

**BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

OMB No. 1660-0008  
Expiration Date: November 30, 2018

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <b>#64 FOREST AVENUE</b>			Policy Number:
City <b>KEANSBURG</b>	State <b>N.J.</b>	ZIP Code <b>07734</b>	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

**FRONT VIEW 8/5/16**



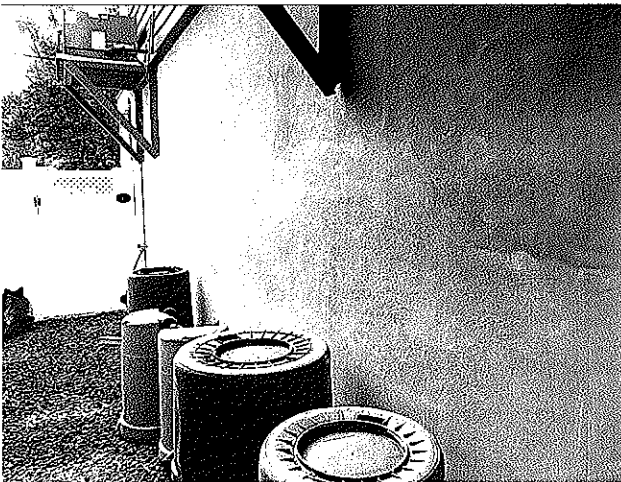
to



Photo One

Photo One Caption

**REAR VIEW 8/5/16**



to



Photo Two

Photo Two Caption

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2018

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. #64 FOREST AVENUE			Policy Number:
City KEANSBURG	State N.J.	ZIP Code 07734	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

LEFT Side 8/5/16



Photo One

Photo One Caption

RIGHT Side 8/5/16

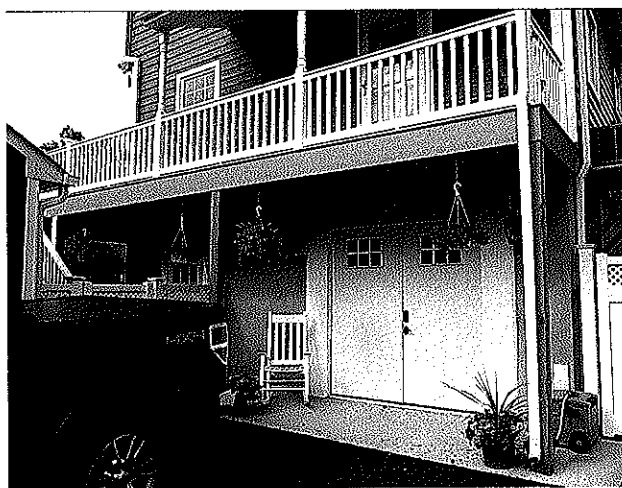


Photo Two

Photo Two Caption



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# ICC-ES Report

## ESR-2074

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Reissued 02/2015  
This report is subject to renewal 02/2017.

DIVISION: 08 00 00—OPENINGS  
SECTION: 08 95 43—VÉNTS/FOUNDATION FLOOD VENTS

REPORT HOLDER:

**SMARTVENT PRODUCTS, INC.**

430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071

EVALUATION SUBJECT:

**SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520;  
#1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514**



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**ICC-ES Evaluation Report****ESR-2074**

Reissued February 2015

Revised May 2016

This report is subject to renewal February 2017.

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DIVISION: 08 00 00—OPENINGS  
Section: 08 95 43—Vents/Foundation Flood Vents

## REPORT HOLDER:

SMARTVENT PRODUCTS, INC.  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368  
[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto:info@smartvent.com)

## EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS:  
MODELS #1540-520; #1540-521; #1540-510; #1540-511;  
#1540-570; #1540-574; #1540-524; #1540-514

## 1.0 EVALUATION SCOPE

## Compliance with the following codes:

- 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2015, 2012, 2009 and 2006 *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.

## Properties evaluated:

- Physical operation
- Water flow

## 2.0 USES

The Smart Vent® units are engineered mechanically operated flood vents (FVs) employed to equalize hydrostatic pressure on walls of enclosures subject to rising or falling flood waters. Certain models also allow natural ventilation.

## 3.0 DESCRIPTION

## 3.1 General:

When subjected to rising water, the Smart Vent® FVs internal floats are activated, then pivot open to allow flow in either direction to equalize water level and hydrostatic pressure from one side of the foundation to the other. The FV pivoting door is normally held in the closed position by a buoyant release device. When subjected to rising water, the buoyant release device causes the unit to unlatch,

allowing the door to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. Smart Vent® Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. The SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 units each contain two vertically arranged openings per unit.

## 3.2 Engineered Opening:

The FVs comply with the design principle noted in Section 2.7.2.2 and Section 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)] for a maximum rate of rise and fall of 5.0 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Smart Vent FVs must be installed in accordance with Section 4.0.

## 3.3 Ventilation:

The SmartVENT® Model #1540-510 and SmartVENT® Overhead Door Model #1540-514 both have screen covers with 1/4-inch-by-1/4-inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm<sup>2</sup>) of net free area to supply natural ventilation. The SmartVENT® Stacking Model #1540-511 consists of two Model #1540-510 units in one assembly, and provides 102 square inches (65 806 mm<sup>2</sup>) of net free area to supply natural ventilation. Other FVs recognized in this report do not offer natural ventilation.

## 4.0 DESIGN AND INSTALLATION

SmartVENT® and FloodVENT® are designed to be installed into walls or overhead doors of existing or new construction from the exterior side. Installation of the vents must be in accordance with the manufacturer's instructions, the applicable code and this report. Installation clips allow mounting in masonry and concrete walls of any thickness. In order to comply with the engineered opening design principle noted in Section 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Smart Vent® FVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one FV for every 200 square feet (18.6 m<sup>2</sup>) of enclosed area, except that the SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 must be installed with a minimum of one FV for every 400 square feet (37.2 m<sup>2</sup>) of enclosed area.

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Page 1 of 3

- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305.4 mm) above the higher of the final grade or floor and finished exterior grade immediately under each opening.

**5.0 CONDITIONS OF USE**

The Smart Vent® FVs 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** The Smart Vent® FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern.

- 5.2** The Smart Vent® FVs must not be used in the place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

**6.0 EVIDENCE SUBMITTED**

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015.

**7.0 IDENTIFICATION**

The Smart VENT® models recognized in this report must be identified by a label bearing the manufacturer's name (Smartvent Products, Inc.), the model number, and the evaluation report number (ESR-2074).

**TABLE 1—MODEL SIZES**

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)
FloodVENT®	1540-520	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT®	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT® Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT®	1540-570	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Stacker	1540-511	16" X 16"	400
FloodVent® Stacker	1540-521	16" X 16"	400

For SI: 1 inch = 25.4 mm; 1 square foot = m<sup>2</sup>

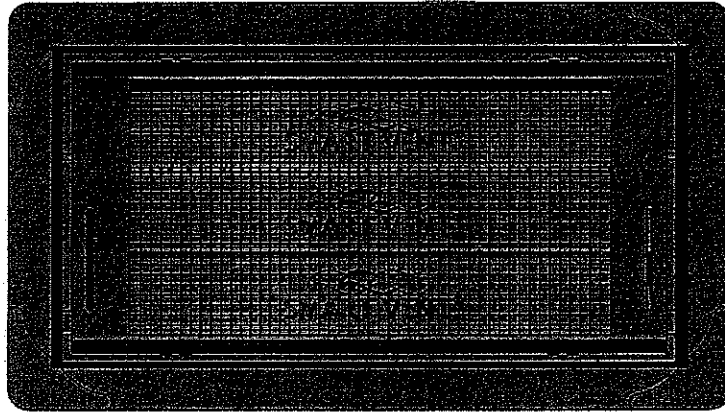


FIGURE 1—SMART VENT: MODEL 1540-510

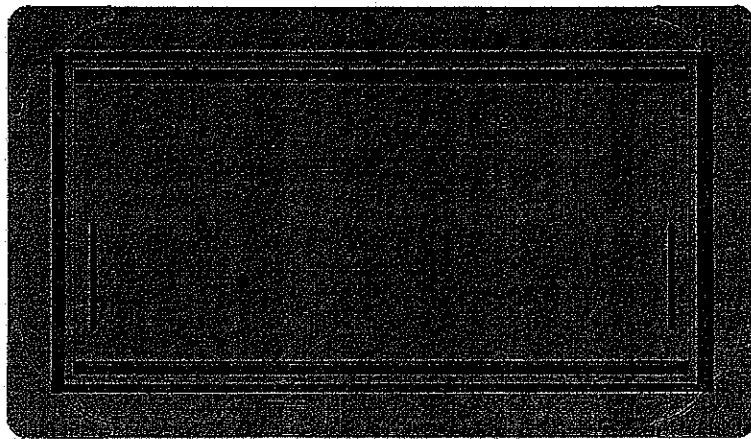


FIGURE 2—SMART VENT MODEL 1540-520

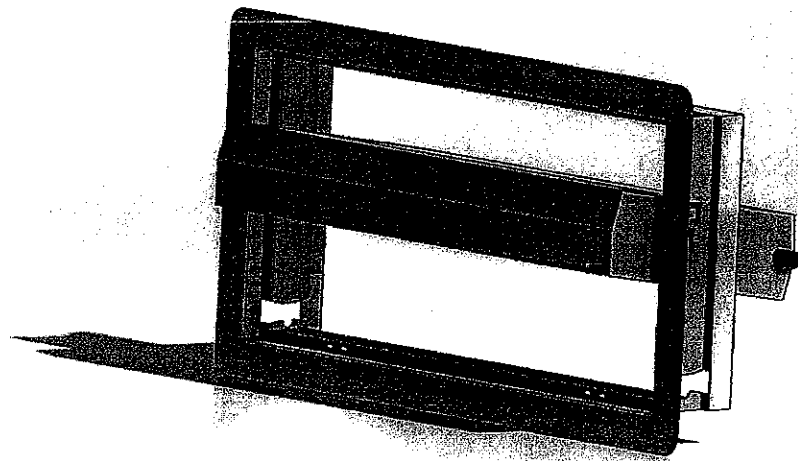


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN



**ICC-ES Evaluation Report****ESR-2074 FBC Supplement**

Reissued February 2015

Revised March 2016

*This report is subject to renewal February 2017.*

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**DIVISION: 08 00 00—OPENINGS**  
**Section: 08 95 43—Vents/Foundation Flood Vents****REPORT HOLDER:****SMARTVENT PRODUCTS, INC.**  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368  
[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto:info@smartvent.com)**EVALUATION SUBJECT:****SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, recognized in ICC-ES master report ESR-2074, have also been evaluated for compliance with the codes noted below.

**Applicable code editions:**

- 2014 Florida Building Code—Building (FBC)
- 2014 Florida Building Code—Residential (FRC)

**2.0 CONCLUSIONS**

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the FBC and the FRC, provided the design and installation are in accordance with the *International Building Code®* provisions noted in the master report.

Use of the Smart Vent® Automatic Foundation Flood Vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the FBC and the FRC.

For products falling under Florida Rule 9N-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).

This supplement expires concurrently with the master report, reissued February 2015 and revised May 2016.