U.S. DEPARTMENT OF HOMELAND SECURITY **ELEVATION CERTIFICATE** FEDERAL EMERGENCY MANAGEMENT AGENCY OMB No. 1660-0008 National Flood Insurance Program important: Read the instructions on pages 1-9. Expiration Date: July 31, 2015 SECTION A - PROPERTY INFORMATION FOR INSURANCE COMPANY USE A1. Building Owner's Name JOHN GRIFFITH Policy Number: A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Company NAIC Number: 6715 TURNER RD. SE City TURNER State OR ZIP Code 97392 A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) TAX LOT#200, TAX MAP 8S, R2W, 20C A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL A5. Latitude/Longitude: Lat. 44.85794 Long. 122.96089 Horizontal Datum: ☐ NAD 1927 ☒ 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 2 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) a) Square footage of attached garage 2406 sq ft <u>667</u> b) Number of permanent flood openings in the crawlspace Number of permanent flood openings in the attached garage or enclosure(s) within 1.0 foot above adjacent grade within 1.0 foot above adjacent grade o Na see 9 c) Total net area of flood openings in A8.b 2820 sq in Total net area of flood openings in A9.b 0 // sq in d) Engineered flood openings? d) Engineered flood openings? ☐ Yes ⊠ No SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION B1. NFIP Community Name & Community Number B2. County Name B3. State MARION COUNTY, #410154 MARION OR B4, Map/Panel Number B5. Suffix B6. FIRM Index Date B9. Base Flood Elevation(s) (Zone **B7. FIRM Panel** B8. Flood 41047C0677 H 01/02/2003 Effective/Revised Date Zone(s) AO, use base flood depth) 01/02/2003 AF 266.5 B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. Community Determined ☐ Other/Source: B11. Indicate elevation datum used for BFE in Item B9: X NGVD 1929 □ NAVD 1988 ☐ Other/Source: B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes Designation Date: ☐ CBRS □ OPA SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) C1. Building elevations are based on: ☐ Construction Drawings\* ☐ Building Under Construction\* \*A new Elevation Certificate will be required when construction of the building is complete. 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. Benchmark Utilized: MOBM#9601 Vertical Datum: NGVD 1929 Indicate elevation datum used for the elevations in items a) through h) below. ☑ NGVD 1929 ☐ NAVD 1988 ☐ 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) 265.3 ☑ feet ☐ meters b) Top of the next higher floor 269.9 ☐ meters c) Bottom of the lowest horizontal structural member (V Zones only) N/A. ☐ feet ☐ meters d) Attached garage (top of slab) <u> 268.5</u> ☐ meters e) Lowest elevation of machinery or equipment servicing the building 268.5 ☐ meters (Describe type of equipment and location in Comments) f) Lowest adjacent (finished) grade next to building (LAG) 267.2 ☐ meters g) Highest adjacent (finished) grade next to building (HAG) 268.0 ☐ meters h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support 267.4 ☐ meters 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. REGISTERED I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. PROFESSIONAL Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a AND SURVEYOR Check here if attachments. licensed land surveyor? ☑ Yes ☐ No Certifier's Name TROY PETERSEN License Number 61408 OREGON Title LAND SURVEYOR Company Name LAND MARKERS SURVEYING

Signature

Address 581 LANCASTER DR. SE #397

State OR

Telephone 503-581-0911

ZIP Code 97317

City SALEM

Date 08/01/2013

12~

Expires

JANUARY 10, 2006

TROY E. PETERSEN

61.408

31-20

**ELEVATION CERTIFICATE, page 2** IMPORTANT: In these spaces, copy the corresponding information from Section A. FOR INSURANCE COMPANY USE Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Policy Number: 6715 TURNER RD. SE City TURNER State OR ZIP Code 97392 Company NAIC Number: SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED) Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner. Comments HOT WATER HEATER LOCATED AT C2(d), C2(a) MEASURED AT INTERIOR CRAWLSPACE. 12 OF THE FOUNDATION VENTS ARE SMART VENTS (SEE ATTACHED) AND 5 ARE REGULAR VENTS. THE AREA OF THE VENTS INCLUDE THE 200 SQ IN AS SHOWN ON THE SMART VENT DATA SHEET. Signature Date 08/01/2013 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. 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. Aftached 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 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's or Owner's Authorized Representative's Name Address City State ZIP Code Signature Date Telephone Comments Check here if attachments. SECTION G - COMMUNITY INFORMATION (OPTIONAL) The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8-G10. In Puerto Rico only, enter meters. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.) G2. 🗌 A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO. The following information (Items G4-G10) is provided for community floodplain management purposes. G3. 🔀 G4. Permit Number G5. Date Permit Issued G6. Date Certificate Of Compliance/Occupancy Issued G7. This permit has been issued for: ■ New Construction ☐ Substantial Improvement G8. Elevation of as-built lowest floor (including basement) of the building: 26 9 ∫ feet ☐ meters G9. BFE or (in Zone AO) depth of flooding at the building site: X feet meters Datum G10. Community's design flood elevation: Ō meters Local Official's Name Title Community Name Telephone Signature Comments Check here if attachments.

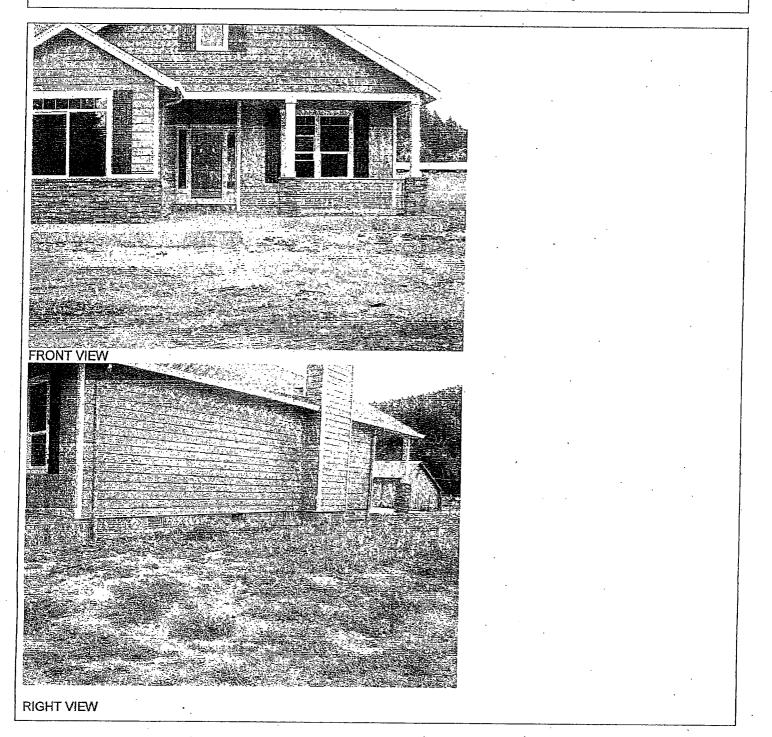
#### **ELEVATION CERTIFICATE**, page 3

# **Building Photographs**

See Instructions for Item A6.

IMPORTANT: In these spaces, copy the corresponding information from Section A.  Building Street Address (including Apt., Unit, Suite, and/or Bldg, No.) or P.O. Route and Box No. 6715 TURNER RD. SE			FOR INSURANCE COMPANY USE Policy 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.



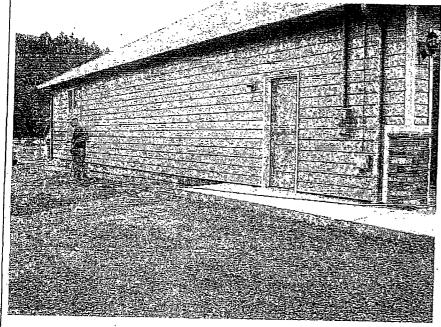
## **ELEVATION CERTIFICATE, page 4**

# Building Photographs Continuation Page

IMPORTANT: In these spaces, copy the co	FOR INSURANCE COMPANY USE Policy Number:	
Building Street Address (including Apt., Unit, Suite, 6715 TURNER RD SE		
City TURNER	State OR ZIP Code 97392	Company NAIC Number:
		1

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.

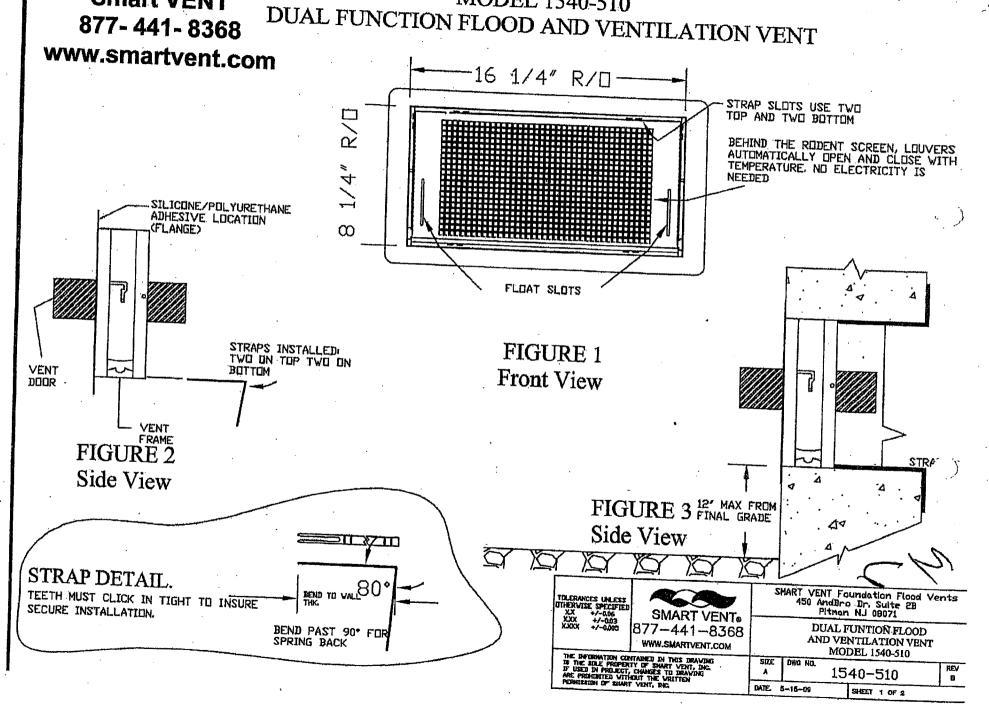




LEFT VIEW

# Smart VENT

## DET. IL DIAGRAM MODEL 1540-510 DUAL FUNCTION FLOOD AND VENT





# INSTALLATION INSTRUCTIO & DETAILS

MODEL 1540-510 DUAL FUNCTION FLOOD AND VENTILATION VENT REV. 5-15-09

# INSTALLATION INSTRUCTIONS

- 1. Remove vent door from vent frame. (Turn upside down, rotate bottom of door outward and slide out)
- 2. Prepare a CLEAN 16.25" wide by 8.25" high rough opening (approx. 1 block wide X 1 block high) for each vent. Ensure the bottom of the
- 3. Apply a bead of silicone or polyurethane adhesive around the back of the flange on the vent frame. (FIG. 2)
- 4. Bend the 4 steel straps to the thickness of the wall measuring from the end with the teeth (see STRAP DETAIL)
- 5. Insert the top straps into the top two strap slots about two clicks.
- 6. Insert the vent frame in the cut opening. The bent strap ends go in then up behind the inside of the wall. Push the frame tight against the face of the wall. Ensure the frame is flush and square in the opening. (FIG. 3)
- 7. Reach through the vent opening and click the two straps in while holding the front of the vent against the wall face. The sharp point of the straps should not extend past the front of the vent face. Install the two remaining bottom straps.
- 8. Re-check that frame is square and slots are clear of debris, and caulk.
- 9. Install the door into frame by grasping the bottom of door (with float pins down) and front (small screen in front). Slide door into frame
- 10. To open the door insert two credit cards into the float slots as shown in the diagram. This will unlatch the door for removal and cleaning.

# DETAILED SPECIFICATIONS

MATERIAL: STAINLESS STEEL OPERATION FLOOD: AUTOMATIC NON-POWERED ACTIVATION AND OPERATION VENT REMAINS CLOSED AND LOCKED UNTIL ACTIVATED

OPERATION AIR: AUTOMATIC LOUVERS FULLY OPEN AT 75 DEG. FULLY CLOSED AT 35 DEG. NO POWER REQUIRED INSTALLATION:

SECURED W/ 4 STAINLESS STEEL STRAPS SUPPLIED

HYDROSTATIC RELIEF: 200 Sq. Ft per Vent

VENTILATION: 51 Sq. in. per Vent NOTE: VAPOR BARRIER ALLOWS FOR REDUCED VENTILATION

REQUIREMENTS FLOOD: MINIMUM OF 2 VENTS PER ENCLOSED AREA MOUNTED ON AT LEAST TWO DIFFERENT WALLS

EXTERIOR POWDER COATED WHITE, WHEAT, GRAY, AND BLACK (AVAILABLE)

MEETS THE REQUIREMENTS FOR ENGINEERED OPENINGS AS SET FORTH BY: FEMA, NFIP, ICC. & ASCE SUPPORTIVE DOCUMENTS, TB 1-08, 44CFR 60.3(C)(5), ASCE 24-05 ICC EVALUATION # ESR-2074



### **ICC-ES Evaluation Report**

ESR-2074\*

Reissued December 1, 2012 This report is subject to renewal February 1, 2015.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

**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 info@smartvent.com

#### **EVALUATION SUBJECT:**

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: FLOODVENT™ MODEL #1540-520; **FLOODVENT™** STACKING MODEL #1540-521; SMARTVENT™ MODEL #1540-510: SMARTVENT™ STACKING MODEL #1540-511: WOOD WALL FLOOD MODEL #1540-570; WOOD WALL OVERHEAD DOOR MODEL #1540-574; FLOODVENT™ OVERHEAD DOOR MODEL #1540-524; SMARTVENT™ OVERHEAD DOOR MODEL #1540-514

#### 1.0 EVALUATION SCOPE

#### Compliance with the following codes:

- 2009 and 2006 International Building Code® (IBC)
- 2009 and 2006 International Residential Code® (IRC)

#### Properties evaluated:

- Physical operation
- Water flow

#### **2.0 USES**

The Smart Vent® units are automatic foundation flood vents (AFFVs) employed to equalize hydrostatic pressure on nonfire-resistance-rated foundation walls, rolling-type overhead doors and building walls subject to rising or falling flood waters. The Smart Vent® units are intended for use where flood hazard areas have been established in accordance with IBC Section 1612.3 or IRC Section R3222.1. Certain models also allow natural ventilation in accordance with Section 1203 of the IBC or Section 408.1 of the IRC.

#### 3.0 DESCRIPTION

#### 3.1 General:

When subjected to pressure from rising water, the Smart Vent® AFFVs disengage, 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 AFFV 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 plate to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. The SmartVENT™ Stacking Model #1540-511 FloodVENT™ Stacking Model #1540-521 units each contain two vertically arranged openings per unit.

#### 3.2 Engineered Opening:

The AFFVs comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 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 AFFVs must be installed in accordance with Section 4.0.

#### 3.3 Model Sizes:

The FloodVENT™ Model #1540-520, SmartVENT™ Model #1540-510, FloodVENT™ Overhead Door Model #1540-524, and SmartVENT™ Overhead Door Model #1540-514 units measure 15<sup>3</sup>/<sub>4</sub> inches wide by 7<sup>3</sup>/<sub>4</sub> inches high (400 by 196.9 mm). The Wood Wall Flood Model #1540-570 and Wood Wall Flood Overhead Door Model #1540-574 units measure 14 inches wide by 83/4 inches high (355.6 by 222.25 mm). The SmartVENT™ Stacking Model #1540-511 and FloodVENT™ Stacking Model #1540-521 units measure 16 inches wide by 16 inches high (406.4 by 406.4 mm).

#### 3.4 Ventilation:

The SmartVENT® Model #1540-510 and SmartVENT® Overhead Door Model #1540-514 both have screen covers with  $^{1}$ /<sub>4</sub>-inch-by- $^{1}$ /<sub>4</sub>-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 AFFVs recognized in this report do not offer natural ventilation.

#### 4.0 INSTALLATION

SmartVENT® and FloodVENT $^{\text{TM}}$  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. The mounting straps allow mounting in wood, masonry and

\*Revised July 2013



concrete walls up to 12 inches (305 mm) thick. In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, the Smart Vent® AFFVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one AFFV for every 200 square feet (18.6 m²) 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 AFFV for every 400 square feet (37.2 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the AFFV located a maximum of 12 inches (305.4 mm) above grade.

#### 5.0 CONDITIONS OF USE

The Smart Vent® AFFVs 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® AFFVs 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<sup>®</sup> AFFVs 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 Automatic Foundation Flood Vents (AC364), dated October 2007.

#### 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).



#### **ICC-ES Evaluation Report**

#### **ESR-2074 FBC Supplement**

Issued July 1, 2013

This report is subject to renewal February 1, 2015.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

**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 info@smartvent.com

#### **EVALUATION SUBJECT:**

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: FLOODVENT™ MODEL #1540-520; FLOODVENT™ STACKING MODEL #1540-521; SMARTVENT™ MODEL #1540-510; SMARTVENT™ STACKING MODEL #1540-511; WOOD WALL FLOOD MODEL #1540-570; WOOD WALL FLOOD OVERHEAD DOOR MODEL #1540-574; FLOODVENT™ OVERHEAD DOOR MODEL #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:

- 2010 Florida Building Code—Building (FBC)
- 2010 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 structures not subject to FBC Section 2326.3.1 or FRC Section 4409.13.3.1, as applicable.

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 December 1, 2012, revised July 2013.