U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency

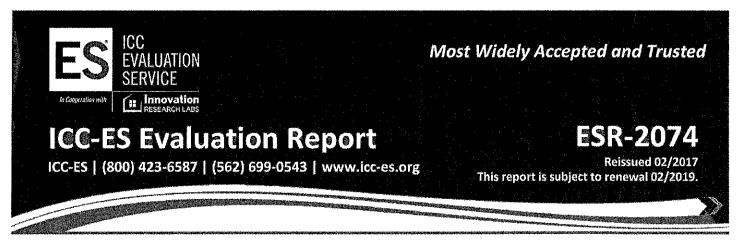
ELEVATION CERTIFICATE

OMB No. 1660-0008 Expires March 31, 2012

deral Emergency Management Agency
Itional Flood Insurance Program Important: Read the instructions on pages 1-

National Flood Insurance Program Importar	nt: Read the instruction	s on pages 1-9.	
SE	CTION A - PROPERTY II	NFORMATION	For Insurance Company Use:
Building Owner's Name SHERI LANDES			Policy Number
A2. Building Street Address (including Apt., Unit, Suite, and/o	Company NAIC Number		
City MARGATE State NJ ZIP Code 08402			
A3. Property Description (Lot and Block Numbers, Tax Parce LOT 18 BLOCK 710.02	l Number, Legal Description,	etc.)	
 A4. Building Use (e.g., Residential, Non-Residential, Addition A5. Latitude/Longitude: Lat. 39°20'13.4" Long. 74°30'34.1" A6. Attach at least 2 photographs of the building if the Certific A7. Building Diagram Number 8 A8. For a building with a crawlspace or enclosure(s): a) Square footage of crawlspace or enclosure(s) b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade c) Total net area of flood openings in A8.b 	ate is being used to obtain fl A9. 1478 sq ft	For a building with an attact a) Square footage of attact b) No. of permanent flood within 1.0 foot above ac c) Total net area of flood	thed garage: ched garage <u>N/A</u> sq ft openings in the attached garage djacent grade openings in A9.b sq in
d) Engineered flood openings? Yes No	NOUDANGE DATE MA	d) Engineered flood open	
		P (FIRM) INFORMATION	
B1. NFIP Community Name & Community Number MARGATE 345304	B2. County Name ATLANTIC COUNTY		B3. State NEW JERSEY
B4. Map/Panel Number B5. Suffix B6. FIRM Inde 345304\0001 C Date 7/1/74	B7. FIRM Pane Effective/Revised I 10/28/83		B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 10.00'
C1. Building elevations are based on: *A new Elevation Certificate will be required when construction. C2. Elevations – Zones A1-A30, AE, AH, A (with BFE), VE, V1-	Drawings* \(\) Building is completed. V30, V (with BFE), AR, AR/A	, AR/AE, AR/A1-A30, AR/AH	Finished Construction
below according to the building diagram specified in Item A Benchmark Utilized Progression Datum NGVD 1929 Conversion/Comments	Use the same datum as t	ne BFE.	0 3 23 12
Conversion/Confinence		Check the measuren	nent used.
 a) Top of bottom floor (including basement, crawlspace, of the next higher floor c) Bottom of the lowest horizontal structural member (V Z d) Attached garage (top of slab) e) Lowest elevation of machinery or equipment servicing (Describe type of equipment and location in Comments f) Lowest adjacent (finished) grade next to building (LAG 	70nes only) 11.25 N/A. N/A. the building *11.01 s) 7.33	feet	o Rico only)
 g) Highest adjacent (finished) grade next to building (HAC h) Lowest adjacent grade at lowest elevation of deck or s 			77.6
structural support	30 30-5 00000000		-
This certification is to be signed and sealed by a land surveyor,		CHITECT CERTIFICATIO	
information. I certify that the information on this Certificate repril understand that any false statement may be punishable by fin	resents my best efforts to inte	erpret the data available.	2
	Were latitude and longitud licensed land surveyor?	e in Section A provided by a ☑ Yes ☐ No	
tifier's Name DANIEL J. PONZIO, SR.	License N	umber GS37603	14 T 15
	ARTHUR W. PONZIO CO.	& ASSOCIATES, INC.	
Address 400 NORTH DOVER AVENUE City ATLANTIC	CITY State NJ	ZIP Code 08401	
Signature Date	5/22/12 Telephone	609-344-8194	

IMPORTANT: In these spaces, copy the corresponding	g 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	
1 BAYSIDE COURT City MARGATE State NJ ZIP Code 08402			Company NAIC Number	
SECTION D - SURVEYOR, ENGI	NEER. OR ARCHITECT CERT	TFICATION (CONT	INUED)	
Copy both sides of this Elevation Certificate for (1) community office		· · · · · · · · · · · · · · · · · · ·		
Comments PROJECT # 30254	July (2) insurance agent company,	and (6) ballotting own	· · · · · · · · · · · · · · · · · · ·	
ICC-ES EVALUATION REPORT ATTACHED (8) EIGHT COVERAGE EACHTOTALING 1600 TOTAL SQ. FT. COVERAGE	OF MODEL 1540/510 SMART VE	INTS WERE USED P	ROVIDING 200 SQ. FT. OF	
Signature and James	Date 5/22/12			
SECTION E - BUILDING ELEVATION INFORMATION	(SURVEY NOT REQUIRED)	FOR ZONE AO AN		
For Zones AO and A (without BFE), complete Items E1-E5. If the and C. For Items E1-E4, use natural grade, if available. Check the E1. Provide elevation information for the following and check the grade (HAG) and the lowest adjacent grade (LAG). a) Top of bottom floor (including basement, crawlspace, or eight) Top of bottom floor (including basement, crawlspace, or eight) Top of bottom floor (including basement, crawlspace, or eight) E2. For Building Diagrams 6-9 with permanent flood openings proceed (elevation C2.b in the diagrams) of the building is	appropriate boxes to show whether appropriate boxes to show appropriate boxes to	er the elevation is about the elevation is about the elevation is about the et meters at et meters above eccordance with the co	ove or below the highest adjacent below the HAG. bove or below the LAG. nstructions), the next higher floor AG. or below the HAG.	
SECTION F - PROPERTY OWNER			CATION	
The property owner or owner's authorized representative who compored zone AO must sign here. The statements in Sections A, B, and Property Owner's or Owner's Authorized Representative's Name		cano filit - antifactorio e menoramento en come a come con contrata servici	-issued or community-issued BFE)	
ess	City	State	ZIP Code	
Signature	Date	Telephone		
Comments				
			☐ Check here if attachmen	
SECTION G - COM	MMUNITY INFORMATION (OF	TIONAL)		
ne local official who is authorized by law or ordinance to administer and G of this Elevation Certificate. Complete the applicable item(s) at the information in Section C was taken from other docume is authorized by law to certify elevation information. (Indicated Law	and sign below. Check the measurentation that has been signed and sate the source and date of the elevated in Zone A (without a FEMA-is	ement used in Items sealed by a licensed s ation data in the Com sued or community-is	G8 and G9. surveyor, engineer, or architect who ments area below.)	
G4. Permit Number G5. Date Permit Issued 7-20-10		G6. Date Certificate Of Compliance/Occupancy Issued 7-5-12		
7. This permit has been issued for: New Construction 3. Elevation of as-built lowest floor (including basement) of the buil 4. BFE or (in Zone AO) depth of flooding at the building site: 4. Community's design flood elevation	Substantial Improvement Iding: feet	meters (PR) Datum _ meters (PR) Datum _ meters (PR) Datum _		
ocal Official's Name James Galantino	Title	Construction	n Official	
Community Name Margate City	· Telephone	609-822-1	974	
Signature CLL,	Date /2 8/12	,	×1.3	
ments	7 - 7 - 6 - 0			
			☐ Check here if attachments	



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

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 2017 Revised November 2017

This report is subject to renewal February 2019.

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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: 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 mm²) 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 mm²) 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 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 FV for every $400 \text{ square feet } (37.2 \text{ m}^2) \text{ of enclosed area.}$

- 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 ³ / ₄ " X 7 ³ / ₄ "	200
SmartVENT [®]	1540-510	15 ³ / ₄ " X 7 ³ / ₄ "	200
FloodVENT [®] Overhead Door	1540-524	15 ³ / ₄ " X 7 ³ / ₄ "	200
SmartVENT [®] Overhead Door	1540-514	15 ³ / ₄ " X 7 ³ / ₄ "	200
Wood Wall FloodVENT®	1540-570	14" X 8 ³ / ₄ "	200
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 8 ³ / ₄ "	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 = m²

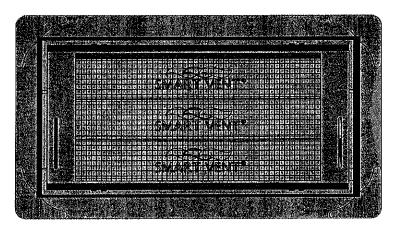


FIGURE 1—SMART VENT: MODEL 1540-510

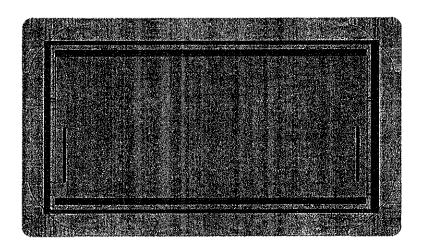


FIGURE 2-SMART VENT MODEL 1540-520

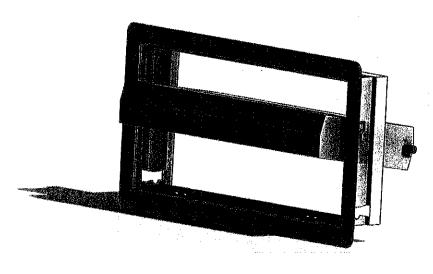


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN