U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program

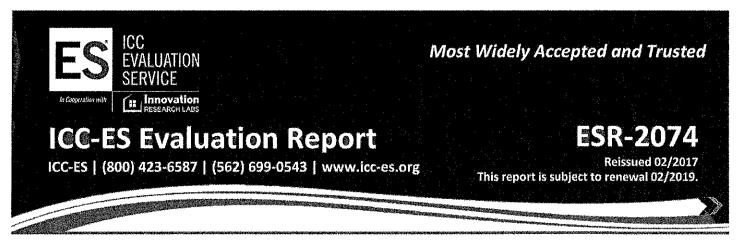
ELEVATION CERTIFICATE

OMB No. 1660-0008 Expires March 31, 2012

ational Flood Insurance Program Important: Read the instructions on pages 1-9.

SECTION A - PROPERTY INFORMATION For Insurance Company Use:
41. Building Owner's Name KARL SENSEMAN Policy Number
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Company NAIC Number SO3 N. CLERMONT AVENUE
City ARGATE State ZIP Code O8402
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) LOT Z BLOCK 804.01
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) A5. Latitude/Longitude: Lat. 39,33908° Long744, 50291° 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
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: A9. For a building with an attached garage: a) Square footage of cattached garage sq ft b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade c) Total net area of flood openings: A9. For a building with an attached garage: a) Square footage of attached garage c) No. of permanent flood openings in the attached garage c) Total net area of flood openings in A9.b sq in d) Engineered flood openings? A9. For a building with an attached garage: a) Square footage of other distance of flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) Total net area of flood openings: a) Square footage of attached garage c) No. of permanent flood openings in the attached garage c) Total net area of flood openings: a) Square footage of attached garage c) No. of permanent flood openings in the attached garage c) Total net area of flood openings: a) Square footage of attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood openings in the attached garage c) No. of permanent flood opening
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION
B1. NFIP Community Name & Community Number B2. County Name B3. State CITY OF MARKATE CITY 345304 ATLANTIC
B4. Map/Panel Number B5. Suffix B6. FIRM Index B7. FIRM Panel B8. Flood B9. Base Flood Elevation(s) (Zone Date Effective/Revised Date Zone(s) AO, use base flood depth)
Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. FIS Profile FIRM Community Determined Other (Describe) Indicate elevation datum used for BFE in Item B9: NGVD 1929 NAVD 1988 Other (Describe) Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? CBRS OPA
SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) 11-12-3
1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction *A new Elevation Certificate will be required when construction of the building is complete. 2. 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. Use the same datum as the BFE. Benchmark Utilized
Check the measurement used. a) Top of bottom floor (including basement, crawlspace, or enclosure floor) 8.3 x feet meters (Puerto Rico only) b) Top of the next higher floor 11.3 x feet meters (Puerto Rico only)
c) Bottom of the lowest horizontal structural member (V Zones only) d) Attached garage (top of slab) e) Lowest elevation of machinery or equipment servicing the building
(Describe type of equipment and location in Comments) f) Lowest adjacent (finished) grade next to building (LAG) 6.2 feet meters (Puerto Rico only)
g) Highest adjacent (finished) grade next to building (HAG) h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support Box Geet meters (Puerto Rico only)
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 on this Certificate represents my best efforts to interpret the data available. Understand that any false statement may be dunishable by fine of imprisonment under 18 U.S. Code, Section 1001.
Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No
Certifier's Name INOUARD A. TRANSUE Company Name License Number G533541
PRCFESSIONAL LAND SURVEYOR SCHAFFER NASSAN SCHEIDEGG CE LLC dress 1425 CANTILLON BLVD MAYS LANDING NJ 08330
ignature 10. C Date Telephone 5/29/2012 609 625 7400

IMPORTANT: In these spa	ices, copy the corresponding in	formation from Secti	ion A:	For Insurance Company Use:
Building Street Address (includi	ng Apt., Unit, Suite, and/or Bldg. No.) イナ 女でんUE	or P.O. Route and Box N	o.	Policy Number
City	Sta	ite	ZIP Code	Company NAIC Number
MARGATE SEC	CTION D - SURVEYOR, ENGINE			NTINUED)
A THE RESIDENCE OF THE PARTY OF THE PROPERTY OF	n Certificate for (1) community official,			and the control of th
Comments ITEM ABB 8	SMART VENTS RATED A	7 200 SQ.IN. C	ACH & 2 15	"X30" CRAWL SPACE OPENINGS
ITEM CZE 15	THE A.C. PAD.		er strak e trake	ค.พ.ศ. (ค.ศ. 25 กับพระพันธ์ 15 กับพระพันธ์ 15 กับพระพันธ์ 15 กับพระพันธ์ 15 กับพระพันธ์ 15 กับพระพันธ์ 15 กับพ
	to the same of the	Data		
Signature / / /	3. 1 The same of	Date 5/29	1/2012	Check here if attachments
	ELEVATION INFORMATION (S		- 4	
and C. For Items E1-E4, use n E1. Provide elevation informa grade (HAG) and the lowe a) Top of bottom floor (inc b) Top of bottom floor (inc E2. For Building Diagrams 6-6 (elevation C2.b in the diag E3. Attached garage (top of si E4. Top of platform of machin E5. Zone AO only: If no flood ordinance? Yes	luding basement, crawlspace, or encluding basement, crawlspace, or encluding basement flood openings proving arms) of the building is feet mery and/or equipment servicing the bu	propriate boxes to show osure) is [ded in Section A Items 8 feet meters above or [ilding is [of the bottom floor elevatemust certify this informati	whether the elevation is a feet meters a feet meters a and/or 9 (see pages 8-9 above or below the HAG. feet meters a ed in accordance with the on in Section G.	bove or below the highest adjacent bove or below the HAG. bove or below the LAG. of Instructions), the next higher floor the HAG. above or below the HAG. accommunity's floodplain management
The property owner or owner's	authorized representative who comple	tes Sections A, B, and E	for Zone A (without a FE	MA-issued or community-issued BFE)
or Zone AO must sign here. Th	e statements in Sections A, B, and E	are correct to the best of	my knowledge.	
Property Owner's or Owner's Au	uthorized Representative's Name	and the second s	The state of the s	erione in the second of the se
\ddress	10.11	/ City	State	ZIP Code
Signature	n. Statement Sentence Control of the Sentence Se	Date	Telepho	one g
Comments	A programmed as the control of the program of the p			
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		MUNITY INFORMATIO		el malan en lan
he local official who is authorize nd G of this Elevation Certificate	d by law or ordinance to administer the Complete the applicable item(s) and	e community's floodplain d sign below. Check the	management ordinance measurement used in Ite	can complete Sections A, B, C (or E), ms G8 and G9.
The information in Sect is authorized by law to A community official co	ion C was taken from other document certify elevation information. (Indicate mpleted Section E for a building locat on (Items G4-G9) is provided for comm	tation that has been signed the source and date of the din Zone A (without a Funnity floodplain manage	ed and sealed by a licens the elevation data in the C EMA-issued or communi ement purposes.	ed surveyor, engineer, or architect who Comments area below.) ty-issued BFE) or Zone AO.
G4. Permit Number	G5. Date Permit Issued	G6.	Date Certificate Of Com	pliance/Occupancy Issued
67. This permit has been issued 68. Elevation of as-built lowest f 69. BFE or (in Zone AO) depth 610. Community's design flood e	loor (including basement) of the build of flooding at the building site	Substantial Improvemening	t feet meters (feet meters (PR) Datum
Local Official's Name JAME	S GALANTINO	Title C	ONSTRUCTION	OFFICIAL
Community Name	GATE N. J.	Telephon		
Signature	1	Date		
Comments	\mathcal{U}_{i}	6/1/1	Z.,	
/ ****		J. J.		
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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

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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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

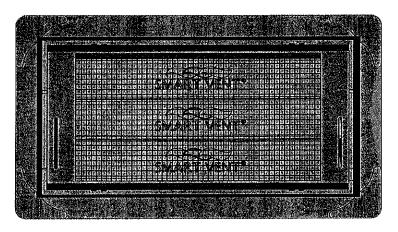


FIGURE 1—SMART VENT: MODEL 1540-510

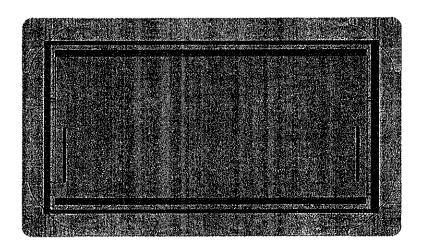


FIGURE 2-SMART VENT MODEL 1540-520

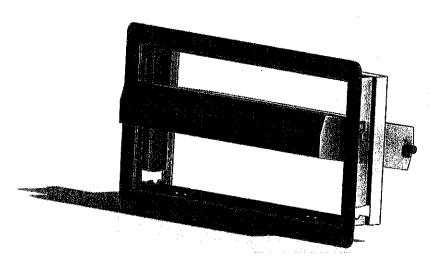


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN