OMB No. 1660-0008

ELEVATION CERTIFICATE Expiration Date: November 30, 2018 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:** 7354 MANASOTA KEY ROAD City State **ZIP Code** Company NAIC Number **ENGLEWOOD** Florida 34223 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. G1. 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. G3. The following information (Items G4–G10) is provided for community floodplain management purposes. G4. Permit Number G5. Date Permit Issued G6. Date Certificate of Compliance/Occupancy Issued 15-129852 G7. This permit has been issued for: □ New Construction □ Substantial Improvement Elevation of as-built lowest floor (including basement) feet meters Datum of the building: G9. BFE or (in Zone AO) depth of flooding at the building site: _ ☐ feet ☐ meters Datum G10. Community's design flood elevation: ☐ feet ☐ meters **Datum** Local Official's Name Title **Community Name** Telephone Signature Date Comments (including type of equipment and location, per C2(e), if applicable) Check here if attachments.

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

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

ELEVATION CERTIFICATE Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community office

A1. Building Owner's Name		INFORMATION	2000	FOR INSU	RANCE COMPANY US
MICHAEL & CAROL CLARK				Policy Num	ber:
A2. Building Street Address (i Box No.7354 MANASOTA KEY ROAD		e, and/or Bldg. No	.) or P.O. Route and	Company N	IAIC Number:
City ENGLEWOOD		State Florid	la	ZIP Code 34223	
A3. Property Description (Lot METES & BOUNDS, TAX ID #	and Block Numbers, Ta 0491110015	Parcel Number,	Legal Description, e	tc.)	
A4. Building Use (e.g., Reside A5. Latitude/Longitude: Lat.		Addition, Accessor			927 🗵 NAD 1983
A6. Attach at least 2 photograph		Certificate is bein			
A7. Building Diagram Number				(d)	
A8. For a building with a crawle	space or enclosure(s):				
 a) Square footage of craw 	space or enclosure(s)		1364 sq ft		
b) Number of permanent fl	ood openings in the crav	Mspace or enclos	ure(s) within 1.0 foo	t above adiacent dra	de 7
c) Total net area of flood of	penings in A8.b	222	in	- and the designation of the	7
d) Engineered flood opening			1,""		
	124,000				
A9. For a building with an attacl	Here here				
a) Square footage of attack	ned garage	0 sc	ą ft		
h) Number of normannet fl	FILESCO, PART CONT.				
n) Mariner or bernlaueur III	ood openings in the atta	ched garage with	in 1.0 foot above adl	acent grade 0	
			in 1.0 foot above adj	acent grade 0	
c) Total net area of flood o	penings in A9.b	0	in 1.0 foot above adj sq in	acent grade 0	
	penings in A9.b	0		acent grade 0	
c) Total net area of flood opening	penings in A9.b	0	sq in		
c) Total net area of flood of d) Engineered flood opening SE	penings in A9.b gs? Yes No ECTION B - FLOOD IN	0 SURANCE RAT	sq in E MAP (FIRM) INF		
c) Total net area of flood of d) Engineered flood opening SI B1. NFIP Community Name & C SARASOTA COUNTY - 125144	penings in A9.b gs? Yes No ECTION B - FLOOD IN Community Number	0	sq in E MAP (FIRM) INF by Name		B3. State Florida
c) Total net area of flood of d) Engineered flood opening SI B1. NFIP Community Name & C SARASOTA COUNTY - 125144	penings in A9.b gs? Yes No ECTION B - FLOOD IN Community Number	SURANCE RAT B2. Court SARASO 37. FIRM Panel Effective/	sq in E MAP (FIRM) INF by Name	ORMATION B9. Base Flood Flood	Florida
c) Total net area of flood of d) Engineered flood opening Signature Signatur	penings in A9.b gs? Yes No ECTION B – FLOOD IN Community Number B6. FIRM Index Date	SURANCE RAT B2. Count SARASO 37. FIRM Panel	E MAP (FIRM) INF by Name TA B8. Flood	ORMATION B9. Base Flood Flood	Florida
c) Total net area of flood of d) Engineered flood opening St. St. NFIP Community Name & CSARASOTA COUNTY - 125144 4. Map/Panel Number B5. Suffix Panel Number F	penings in A9.b gs? Yes No ECTION B – FLOOD IN Community Number B6. FIRM Index Date 11-04-2016 1	SURANCE RAT B2. Court SARASO 37. FIRM Panel Effective/ Revised Date 1-04-2016	E MAP (FIRM) INF by Name TA B8. Flood Zone(s) AE	B9. Base Flood Ele (Zone AO, use	Florida
c) Total net area of flood of d) Engineered flood opening St. St. NFIP Community Name & CSARASOTA COUNTY - 125144 4. Map/Panel Number B5. Suffix Panel Number F	penings in A9.b gs? Yes No ECTION B – FLOOD IN Community Number B6. FIRM Index Date 11-04-2016 Base Flood Elevation (B	B2. Count SARASO 37. FIRM Panel Effective/ Revised Date 1-04-2016	E MAP (FIRM) INF by Name TA B8. Flood Zone(s) AE flood depth entered	B9. Base Flood Ele (Zone AO, use	Florida
c) Total net area of flood opening d) Engineered flood opening SI 31. NFIP Community Name & C SARASOTA COUNTY - 125144 4. Map/Panel Number B5. Suffix P115C-0432 F B10. Indicate the source of the FIS Profile X FIRM	penings in A9.b gs? Yes No ECTION B – FLOOD IN Community Number B6. FIRM Index Date 11-04-2016 Base Flood Elevation (B	B2. Courres SARASO 37. FIRM Panel Effective/ Revised Date 1-04-2016 FE) data or base and Other/So	E MAP (FIRM) INF by Name TA B8. Flood Zone(s) AE flood depth entered ource:	B9. Base Flood Ele (Zone AO, use	Florida
c) Total net area of flood of d) Engineered flood opening. SIED SIED STATE OF THE SIED STANDS OF THE SIED S	penings in A9.b gs? Yes No ECTION B - FLOOD IN Community Number B6. FIRM Index Date 11-04-2016 Base Flood Elevation (B Community Determines sed for BFE in Item B9:	SURANCE RAT B2. Count SARASO 37. FIRM Panel Effective/ Revised Date 1-04-2016 FE) data or base and Cother/So	E MAP (FIRM) INF by Name TA B8. Flood Zone(s) AE flood depth entered ource: NAVD 1988	B9. Base Flood Ele (Zone AO, use 10' in Item B9:	Florida evation(s) Base Flood Depth)
c) Total net area of flood opening Signature of flood ope	penings in A9.b gs? Yes No ECTION B – FLOOD IN Community Number B6. FIRM Index Date 11-04-2016 Base Flood Elevation (B Community Determinents of the B9: Coastal Barrier Resources	SURANCE RAT B2. Count SARASO 37. FIRM Panel Effective/ Revised Date 1-04-2016 FE) data or base and Cother/So	E MAP (FIRM) INF by Name TA B8. Flood Zone(s) AE flood depth entered ource: NAVD 1988	B9. Base Flood Ele (Zone AO, use 10' in Item B9:	Florida evation(s) Base Flood Depth)

ELEVATION CERTIFICATE

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

IMPORTANT: In these spaces, copy the			FOR INSU	IRANCE COMPAN	Y USE	
Building Street Address (including Apt., Ur 7354 MANASOTA KEY ROAD	nit, Suite, and/or Bldg. No.) or P.O		Policy Nun	nber:		
City State ZIP Code ENGLEWOOD Florida 34223			Company	Company NAIC Number		
SECTION C -	BUILDING ELEVATION INFOR	MATION (SURVEY R	EQUIRED)			
 C1. Building elevations are based on: *A new Elevation Certificate will be r C2. Elevations – Zones A1–A30, AE, AF Complete Items C2.a–h below according to the complete items C2.a–h below according to the care of the ca	equired when construction of the I I, A (with BFE), VE, V1–V30, V (w rding to the building diagram spec	ith BFE), AR, AR/A, AR fied in Item A7. In Puer	/AE AD/A1	Finished Construct A30, AR/AH, AR/A enter meters.		
Benchmark Utilized: FDNR BM #17-		tum: <u>NGVD 1929</u>				
Indicate elevation datum used for the NGVD 1929 X NAVD 19 Datum used for building elevations n	988 Other/Source:					
			Check t	he measurement u	ısed.	
 a) Top of bottom floor (including bas 	sement, crawlspace, or enclosure	floor)	9.9 X	feet meters		
b) Top of the next higher floor			20.6 X	feet meters		
c) Bottom of the lowest horizontal st	ructural member (V Zones only)		19.4 ×	feet meters		
d) Attached garage (top of slab)			8.3 X	feet meters		
 e) Lowest elevation of machinery or (Describe type of equipment and 	location in Comments)		20.6	feet meters		
f) Lowest adjacent (finished) grade	next to building (LAG)		6.6 X	feet meters		
g) Highest adjacent (finished) grade	next to building (HAG)		8.1	feet meters		
h) Lowest adjacent grade at lowest a structural support	elevation of deck or stairs, includir	g	N/A 🔀	feet meters		
SECTION D -	SURVEYOR, ENGINEER, OR	ARCHITECT CERTIF	CATION	· · · · · · · · · · · · · · · · · · ·		
This certification is to be signed and sealed certify that the information on this Certific statement may be punishable by fine or in Were latitude and longitude in Section A page 18.	mprisonment under 18 U.S. Code,	interpret the data avalla Section 1001.	ble. I unders	tand that any false		
	provided by a licensed land survey	or? ⊠Yes □No	∐ Chec	k here if attachmer	nts.	
Certifier's Name B. GREGORY RIETH	License Number 5228		= 7777	1785 (V)		
Title	5226		- 27,			
PSM/CFM			1.	a IN	ત્ર :	
Company Name STRAYER SURVEYING AND MAPPING,	INC.			The en	~	
Address 742 SHAMROCK BLVD			1	Here		
City VENICE	State Florida	ZIP Code 34293	Y	•		
Signature BGR	Date 08-12-2017	Telephone (941) 497-1290	Ext.			
Copy all pages of this Elevation Certificate a	ind all attachments for (1) communi	y official, (2) insurance a	gent/compar	ny, and (3) building	owner.	
Comments (including type of equipment at FILE # 14-07-16. THE OUTSIDE A/C UNI'WAS DERIVED FROM A HAND HELD G. INSTALLED, ENGINEERED FOR 1400 SC FROM N.G.V.D. 1929 DATUM TO N.A.V.I ONLY WITH RAISED SEAL & SIGNATUR	nd location, per C2(e), if applicable T ON THE NORTH SIDE OF THE P.S. UNIT (GPSTEST APP - NO (QUARE INCHES (TOTAL). ELEV/ D. 1988 DATUM USING VERTCO	HOME WAS USED FO CONVERSION). SEVEN TIONS SHOWN IN SE	R SECTION I SMART VE	C2e. SECTION AS ENTS HAVE BEEN	5	

ELEVATION CERTIFICATE

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

IMPORTANT: In these spaces, copy the corre	sponding informati	on from Section A.		FOR INSURANCE	COMPANY USE
Building Street Address (including Apt., Unit, Su 7354 MANASOTA KEY ROAD	ite, and/or Bldg. No.)	or P.O. Route and Box		Policy Number:	
City ENGLEWOOD	State Florida	ZIP Code 34223	1	Company NAIC Nu	ımber
SECTION E - BUILDII FOR	NG ELEVATION IN R ZONE AO AND ZO	FORMATION (SURVE ONE A (WITHOUT BFE	Y NOT R	REQUIRED)	
For Zones AO and A (without BFE), complete Ite complete Sections A, B, and C. For Items E1–E4 enter meters.	ems F1-F5. If the Ce	rtificate is intended to su	innort o l	OMA or LOMR-F	request, Rico only,
E1. Provide elevation information for the following the highest adjacent grade (HAG) and the local transfer of the following the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the local transfer of the highest adjacent grade (HAG) and the highest grade (HAG) and the highes	owest adjacent grade	ropriate boxes to show (LAG).	whether t	he elevation is abo	ove or below
 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 			15	above or	
E2. For Building Diagrams 6–9 with permanent the next higher floor (elevation C2 h in	flood openings provid				
the next higher floor (elevation C2.b in the diagrams) of the building is			1 meters	above or	
E3. Attached garage (top of slab) is	4	feet	meters	above or	
E4. Top of platform of machinery and/or equipm servicing the building is	nent				
				above or	
E5. Zone AO only: If no flood depth number is a floodplain management ordinance? Ye	es No Unk	nown. The local official	d in acco I must cei	rdance with the co rtify this information	mmunity's n in Section G.
SECTION F - PROPERT	Y OWNER (OR OWN	ER'S REPRESENTATI	VE) CER	TIFICATION	
The property owner or owner's authorized repres community-issued BFE) or Zone AO must sign h	sentative who comple ere. The statements	tes Sections A, B, and E n Sections A, B, and E a	for Zone	A (without a FEM. to the best of my	A-issued or knowledge.
Property Owner or Owner's Authorized Represer					
Address from whom	C. =	NS	FI	. 3	4223
		City	State		ZIP Code
Signature hall box	7	Date - 23-17	Telep GUI	phone -670 ~18;	23
Comments			- 1	010 100	
1					
		ed .			
				Check here it	f attachments.

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

See Instructions for Item A6.

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

IMPORTANT: In these spaces, copy	the corresponding informati	on 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. 7354 MANASOTA KEY ROAD			Policy Number:
City ENGLEWOOD	State Florida	ZIP Code 34223	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 08/12/17

Photo One Caption

Glear Photo One



REAR VIEW 08/12/17

Photo Two Caption

Clear Photo Two

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

Continuation Page

OMB No. 1660-0008 Expiration Date: Nove

Expiration Date: November 30, 2018

			Expiration Date: November 30, 2018
IMPORTANT: In these spaces, co	py the corresponding information	on 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. 7354 MANASOTA KEY ROAD			Policy Number:
City ENGLEWOOD	State Florida	ZIP Code 34223	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.



Photo Three Caption

Clear Photo Three



VENTS 08/12/17

Photo Four Caption

Clear Photo Four



ICC-ES Evaluation Report

ESR-2074

Reissued February 2017

This report is subject to renewal February 2019.

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: 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)[†]

¹The 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 square feet (37.2 m²) 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 = m^2

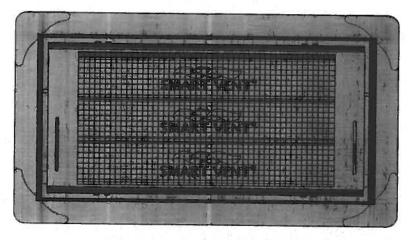


FIGURE 1—SMART VENT: MODEL 1540-510

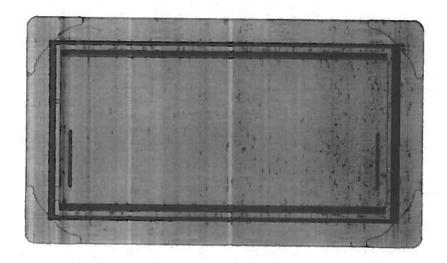


FIGURE 2—SMART VENT MODEL 1540-520

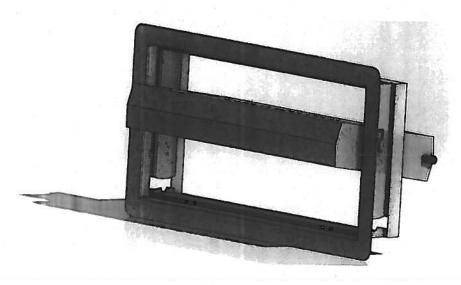


FIGURE 3-SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN



ICC-ES Evaluation Report

ESR-2074

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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:

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[†]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:

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- 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 square feet (37.2 m²) 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

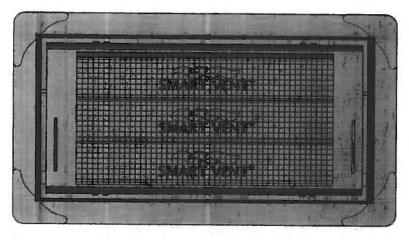


FIGURE 1—SMART VENT: MODEL 1540-510

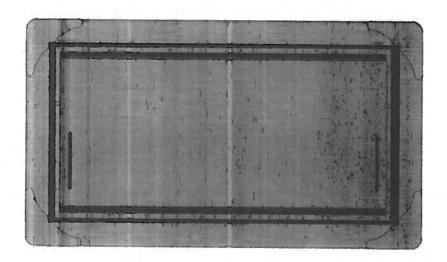


FIGURE 2—SMART VENT MODEL 1540-520

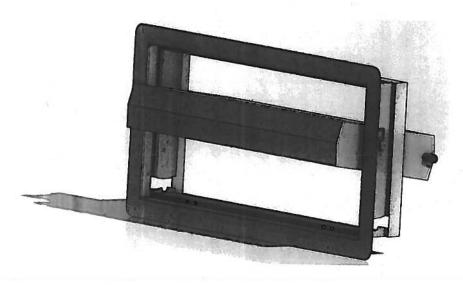


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN