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

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OMB No. 1660-0008 Expiration Date: November 30,	
Expiration Date: November 30,	2022

## **ELEVATION CERTIFICATE**

**Important:** Follow the instructions on pages 1–9.

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	w all nades	or this F	evation(	vernincate an	n all allachr	nenis ini	. ( ) )	community	omear	(Z) insurance a	oenvcompan	vannu	(.3) חווומוח	a owner

		TION A – PROPERT					
A1. Building Owne		TION A - FROPERT			•	Policy Num	RANCE COMPANY USE
Piraino Builders LL	С						
A2. Building Street Box No.	Address (in	cluding Apt., Unit, Sui	te, and/o	or Bldg. No.) c	or P.O. Route and	Company N	IAIC Number:
#1A N. Haverford A	venue						
City		<u></u>		State		ZIP Code	-
City of Margate				New Jer		08402	·
A3. Property Desc Block 209.01 Lot 3		nd Block Numbers, Ta	ax Parce	I Number, Le	gal Description, et	c.)	
A4. Building Use (	e.g., Resider	ntial, Non-Residential,	Addition	, Accessory,	etc.) Residentia	al	
A5. Latitude/Longit	ude: Lat. <u>3</u>	9.3293	Long	74.5006	Horizonta	l Datum: 🔲 NAD 1	1927 🕱 NAD 1983
A6. Attach at least	2 photograp	hs of the building if th	e Certific	ate is being ι	used to obtain floo	d insurance.	
A7. Building Diagra	am Number	7					
A8. For a building	with a crawls	pace or enclosure(s):					
a) Square foot	age of crawl	space or enclosure(s)	1		196.00 sq ft		
b) Number of p	ermanent flo	ood openings in the cr	awlspac	e or enclosur	e(s) within 1.0 foot	above adjacent gra	ade 2
c) Total net are	ea of flood o	penings in A8.b	11 Mar 2010 - 10 Mar 20 And 20	400.00 sq ir	1		
d) Engineered	flood openir	ngs? 🗙 Yes 🗔 N	٩o				
A9. For a building w	/ith an attach	ned garage:					
a) Square foot	age of attach	ned garage		890.00 sq fl			
		ood openings in the at				acent grade 5	
c) Total net are	ea of flood op	penings in A9.b		1000.00 sq	in		
d) Engineered	flood openin	igs? 🗙 Yes 🔲 N	٩o				
······································	SE	CTION B – FLOOD	INSURA	NCE RATE	MAP (FIRM) INF	ORMATION	
	•	Community Number		B2. County			B3. State
CITY OF MARGAT	E & 345	304		ATLANTIC	COUNTY		New Jersey
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	Effe	RM Panel ective/ vised Date	B8. Flood Zone(s)	B9. Base Flood E (Zone AO, use	levation(s) e Base Flood Depth)
34001C0434	F	08-28-2018	08-28-2		AE	10	
B10. Indicate the s	ource of the	Base Flood Elevation	(BFE) d	ata or base fl	ood depth entered	in Item B9:	
🗌 FIS Profile	EX FIRM	Community Deter	mined [	Other/Sou	rce:		
B11. Indicate eleva	ition datum ι	used for BFE in Item B	9: 🗌 N	GVD 1929	X NAVD 1988	Other/Source:	
B12. Is the building	located in a	a Coastal Barrier Resc	ources Sy	ystem (CBRS	) area or Otherwis	e Protected Area (0	DPA)? 🗌 Yes 🕱 No
Designation [	Date:		CBRS	Ο ΟΡΑ			

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ELEVATION CERTIFICATE			OMB No. 1660-0008 Expiration Date: November 30, 20
IMPORTANT: In these spaces, copy t	he corresponding information	from Section A.	FOR INSURANCE COMPANY U
Building Street Address (including Apt., #1A N. Haverford Avenue	Unit, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:
City	State	ZIP Code	Company NAIC Number
City of Margate	New Jersey	08402	
SECTION	C - BUILDING ELEVATION IN	FORMATION (SURVEY	REQUIRED)
C1. Building elevations are based on *A new Elevation Certificate will b		_ ·	struction* X Finished Construction
C2. Elevations – Zones A1–A30, AE, Complete Items C2.a–h below ac	AH, A (with BFE), VE, V1–V30,	V (with BFE), AR, AR/A, A	
Benchmark Utilized: private	Vertica	al Datum: NAVD88	
Indicate elevation datum used for	the elevations in items a) throug	gh h) below.	
NGVD 1929 X NAVE			
Datum used for building elevation	is must be the same as that used	d for the BFE.	Check the measurement used
a) Top of bottom floor (including	basement, crawlspace, or enclose	sure floor)	6.9 X feet meters
b) Top of the next higher floor			16.1 X feet meters
c) Bottom of the lowest horizonta	al structural member (V Zones or		N/A X feet meters
d) Attached garage (top of slab)		ily)	6.9 X feet meters
<ul> <li>e) Lowest elevation of machinery (Describe type of equipment a</li> </ul>	y or equipment servicing the build	ding	<u>14.0</u> X feet
f) Lowest adjacent (finished) gra	,		6.7 X feet meters
g) Highest adjacent (finished) gra			7.0 X feet meters
		aludina	
<ul> <li>h) Lowest adjacent grade at lowe structural support</li> </ul>	Stelevation of deck of stars, inc		6.4 X feet meters
SECTION	D – SURVEYOR, ENGINEER,	, OR ARCHITECT CERT	IFICATION
This certification is to be signed and so I certify that the information on this Ce statement may be punishable by fine of	ertificate represents my best effor	rts to interpret the data ava	by law to certify elevation information ailable. I understand that any false
Were latitude and longitude in Section			Check here if attachments
Certifier's Name	License Nur NJ24GS 04		
Paul M. Koelling, PLS, CFM	NJZ4GO 04	328800	
Title Professional Land Surveyor			Place
Company Name Paul Koelling & Associates NJ C.O.A.	24GA28256300	,	Seal
Address			Here
2161 Shore Road	sox-PHKsurvey@comcast.r	net	
City Linwood	State New Jersey	ZIP Code y 08221	
Signature /	Date .	Telephone	Ext.
Signature aul	Sch g-15	-20 (609) 927-0279	
Copy all pages of this Elevation Certifica	ate and all attachments for (1) corr	nmunity official, (2) insuranc	ce agent/company, and (3) building ow
Comments (including type of equipmen *A8b.) Smart Vents Model #1540-510		-	
***C2a.) foyer, closet, and, stairs enclo	osure		
****C2e.) exterior air unit (elev 14.0)	.pool equipment (elev 14.0)		

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ELEVATION CERTIFICATE			OMB No. 1660 Expiration Dat	)-0008 e: November 30, 2022
IMPORTANT: In these spaces, copy the correspo	nding information	from Section A.	FOR INSURA	NCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, No. #1A N. Haverford Avenue	and/or Bldg. No.) or	P.O. Route and Box	Policy Numbe	
City	State	ZIP Code	Company NA	IC Number
City of Margate	New Jersey	08402	Company IV.	
SECTION E – BUILDING FOR ZC	ELEVATION INFO	RMATION (SURVEY N E A (WITHOUT BFE)	OT REQUIRED)	
For Zones AO and A (without BFE), complete Items complete Sections A, B,and C. For Items E1–E4, us enter meters.				
<ul> <li>E1. Provide elevation information for the following a the highest adjacent grade (HAG) and the lowe</li> <li>a) Top of bottom floor (including basement,</li> </ul>			other the elevation	is above or below
crawlspace, or enclosure) is		feet 🗌 m	eters 🗌 above o	or 🗌 below the HAG.
<ul> <li>b) Top of bottom floor (including basement, crawlspace, or enclosure) is</li> </ul>		feet [] m	eters 🔲 above o	or 🔲 below the LAG.
E2. For Building Diagrams 6–9 with permanent floo the next higher floor (elevation C2.b in	d openings provided	in Section A Items 8 and	d/or 9 (see pages 1	-2 of Instructions),
the diagrams) of the building is		feet 🗌 m	eters 🗌 above o	or below the HAG.
E3. Attached garage (top of slab) is		feet 🗌 m	eters 🗌 above o	or below the HAG.
E4. Top of platform of machinery and/or equipment servicing the building is		feet 🗌 m	eters 🔲 above o	or below the HAG.
E5. Zone AO only: If no flood depth number is avail floodplain management ordinance?		e bottom floor elevated ir own. The local official m		
SECTION F – PROPERTY O	WNER (OR OWNE	R'S REPRESENTATIVE	) CERTIFICATION	
The property owner or owner's authorized represent community-issued BFE) or Zone AO must sign here	ative who complete The statements in	s Sections A, B, and E fo Sections A, B, and E are	r Zone A (without a correct to the best	FEMA-issued or of my knowledge.
Property Owner or Owner's Authorized Representation	ve's Name	den men som fragen at den som		
Address		City	State	ZIP Code
Signature		Date	Telephone	
Comments	· · · · · · · · · · · · · · · · · · ·			
		i		
			—	
		· · · · · · · · · · · · · · · · · · ·		here if attachments.

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ELEVATION CERTIFICATE			¥.,	OMB No. 1660-0008 Expiration Date: November 30, 2022
IMPORTANT: In these spaces, copy the corre	esponding information	n from Section	Α.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, St #1A N. Haverford Avenue	uite, and/or Bldg. No.) o	r P.O. Route ar	nd Box No.	Policy Number:
City City of Margate	State New Jersey	ZIP Code 08402	9	Company NAIC Number
	DN G - COMMUNITY IN			
The local official who is authorized by law or or Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, en	dinance to administer th Certificate. Complete th	ne community's	floodplain ma	
G1. The information in Section C was tak engineer, or architect who is authoriz data in the Comments area below.)				
G2. A community official completed Secti or Zone AO.	on E for a building locat	ted in Zone A (v	vithout a FEM	A-issued or community-issued BFE)
G3. The following information (Items G4–	G10) is provided for co	mmunity floodpl	ain managem	ent purposes.
G4. Permit Number	G5. Date Permit Issue	ed		Date Certificate of Compliance/Occupancy Issued
G7. This permit has been issued for:	New Construction	Substantial Imp	provement	Ξ.
G8. Elevation of as-built lowest floor (including of the building:	g basement)		feet	meters Datum
G9. BFE or (in Zone AO) depth of flooding at t	the building site:		feet	meters Datum
G10. Community's design flood elevation:			_ feet	meters Datum
Local Official's Name	mbaladin MAKCATA	Title	CFM	
	MARCAIL		605 -8	ee.1914
Signature	1-Cl)	Date	8/1	5/1110
Comments (including type of equipment and loc	catión, per C2(e), if appl	icable)		
				Check here if attachments.



Most Widely Accepted and Trusted

# **ICC-ES Evaluation Report**

ESR-2074

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Reissued 02/2019 This report is subject to renewal 02/2021.

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

**REPORT HOLDER:** 

## SMART VENT PRODUCTS, INC.

## **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 FLOOD VENT SEALING KIT #1540-526



"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"



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## **ICC-ES Evaluation Report**

Most Widely Accepted and Trusted

Reissued February 2019

**ESR-2074** 

This report is subject to renewal February 2021.

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

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

**REPORT HOLDER:** 

SMART VENT PRODUCTS, INC.

#### **EVALUATION SUBJECT:**

SMART VENT<sup>®</sup> AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514 FLOOD VENT SEALING KIT #1540-526

#### **1.0 EVALUATION SCOPE**

Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 *International Building Code*<sup>®</sup> (IBC)
- 2018, 2015, 2012, 2009 and 2006 *International Residential Code*<sup>®</sup> (IRC)
- 2018 International Energy Conservation Code<sup>®</sup> (IECC)
- 2013 Abu Dhabi International Building Code (ADIBC)<sup>†</sup>

<sup>†</sup>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<sup>®</sup> 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<sup>®</sup> 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.

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Each unit is fabricated from stainless steel. Smart Vent<sup>®</sup> Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. The SmartVENT<sup>®</sup> Stacking Model #1540-511 and FloodVENT<sup>®</sup> 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<sup>®</sup> Model #1540-510 and SmartVENT<sup>®</sup> 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<sup>®</sup> 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.

#### 3.4 Flood Vent Sealing Kit:

The Flood Vent Sealing Kit Model #1540-526 is used with SmartVENT<sup>®</sup> Model #1540-520. It is a Homasote 440 Sound Barrier<sup>®</sup> (ESR-1374) insert with 21 - 2-inch-by-2-inch (51 mm x 51 mm) squares cut in it. See Figure 4.

## 4.0 DESIGN AND INSTALLATION

#### 4.1 SmartVENT<sup>®</sup> and FloodVENT<sup>®</sup>:

SmartVENT<sup>®</sup> and FloodVENT<sup>®</sup> 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<sup>®</sup> 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

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feet (18.6 m<sup>2</sup>) of enclosed area, except that the SmartVENT<sup>®</sup> Stacking Model #1540-511 and FloodVENT<sup>®</sup> 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.

- 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.

#### 4.2 Flood Vent Sealing Kit

The Flood Vent Sealing Kit Model 1540-526 is used in conjunction with FloodVENT<sup>®</sup> Model #1540-520. When installed and tested in accordance with ASTM E283, the FV and Flood Vent Sealing Kit assembly have an air leakage rate of less than 0.2 cubic feet per minute per lineal foot (18.56 l/min per lineal meter) at a pressure differential of 1 pound per square foot (50 Pa) based on 12.58 lineal feet (3.8 lineal meters) contained by the Flood Vent Sealing Kit.

#### 5.0 CONDITIONS OF USE

The Smart Vent<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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

- **6.1** Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised October 2017).
- **6.2** Test report on air infiltration in accordance with ASTM E283.

#### 7.0 IDENTIFICATION

- 7.1 The Smart VENT<sup>®</sup> models and the Flood Vent Sealing Kit 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).
- **7.2** The report holder's contact information is the following:

SMART VENT PRODUCTS, INC. 430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071 (877) 441-8368 <u>www.smartvent.com</u> info@smartvent.com

TABLE	1-	-MOD	EL	SIZES
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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 <sup>®</sup> Overhead Door	1540-524	15 <sup>3</sup> /4" X 7 <sup>3</sup> /4"	200
SmartVENT <sup>®</sup> 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 <sup>®</sup> Stacker	1540-511	16" X 16"	400
FloodVent <sup>®</sup> Stacker	1540-521	16" X 16"	400

For SI: 1 inch = 25.4 mm; 1 square foot =  $m^2$ 

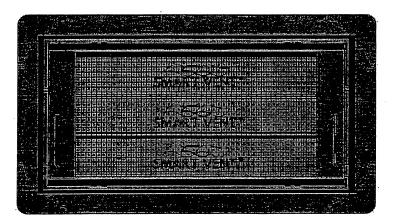


FIGURE 1-SMART VENT: MODEL 1540-510

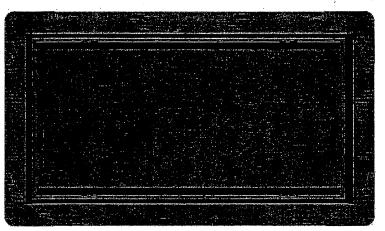


FIGURE 2-SMART VENT MODEL 1540-520

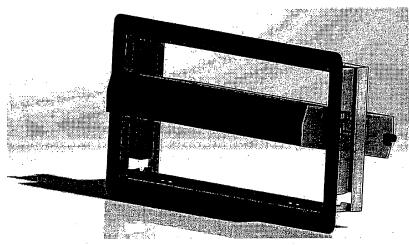


FIGURE 3-SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

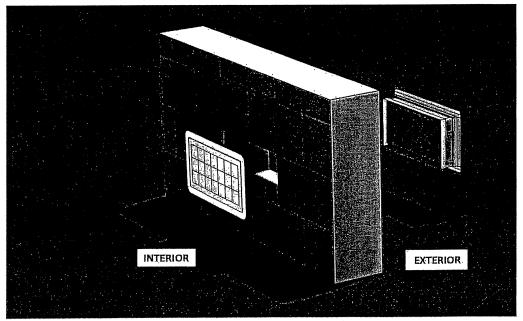


FIGURE 4-FLOOD VENT SEALING KIT

# **Building Photographs**

 See Instructions for Item A6.
 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 N. Haverford Avenue
 State
 ZIP Code

 City
 State
 08402

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two 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." If submitting more photographs than will fit on this page, use the Continuation Page on the reverse.



Front View – Date of Photograph: (See Photo Stamp)

Rear View – Date of Photograph: (See Photo Stamp)



Vent View – Date of Photograph: (See Photo Stamp)