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

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

# **ELEVATION CERTIFICATE**

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

		CTION A - PROPERT	Y INFOR	MATION			FOR INSU	RANCE COMPANY USE
A1. Building Own City of Ventnor (Fi							Policy Num	iber:
		soluding Ant I Init Sui	ita andic	- Dida Na V	D O	Dauta and		
Box No. 5219 Wellington A		ncluding Apt., Unit, Sui	te, and/o	of blag. 140.) (	or M.O.	Route and	Company N	NAIC Number:
City City of Ventno				State New Je			ZIP Code 08406	
A3. Property Desc Lot 1 in Block 338	cription (Lot a	and Block Numbers, T	ax Parce	l Number, Le	gai Des	scription, etc.)		
A4. Building Use (	e.g., Reside	ntial, Non-Residential,	Addition	, Accessory,	etc.)	Non-Residen	tial/Fire Housw	
A5. Latitude/Longi	tude: Lat. 3	9°21'07.6"	Long	74°28'49.6"		Horizontal Da	atum: NAD	1927 X NAD 1983
A6. Attach at leas	t 2 photograp	ohs of the building if th	e Certific	ate is being	used to	obtain flood in	surance.	
A7. Building Diagr	am Number	8						
A8. For a building	with a crawls	space or enclosure(s):						
a) Square foo	tage of craw	lspace or enclosure(s)	)		4088.00	) sq ft		
b) Number of	oermanent flo	ood openings in the cr	awlspace	e or enclosur	e(s) wit	 hin 1.0 foot ab	ove adjacent gra	ade <u>18</u>
c) Total net ar	ea of flood o	penings in A8.b		5100.00 sq i	า			
d) Engineered	flood openir	ngs? 🛛 Yes 🗌 I	No					
A9. For a building v	vith an attach	ned garage:						
a) Square foot	age of attach	ned garage		N/A sq f	t			
b) Number of p	permanent flo	ood openings in the at	tached g	arage within	1.0 foot	t above adjace	nt grade N/A	
		penings in A9.b		N/A sq				
d) Engineered		<del></del>		•				
		go. []						
	SE	CTION B - FLOOD I	NSURA	NCE RATE	MAP (	FIRM) INFOR	MATION	
B1. NFIP Communi City of Ventnor 345	•	Community Number		B2. County Atlantic Cou				B3. State New Jersey
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	Effe	RM Panel ective/ vised Date	B8. F		9. Base Flood E (Zone AO, us	levation(s) e Base Flood Depth)
345326 0001	В	06-18-1971	09-15-1		A8	10	o 	
		Base Flood Elevation			-	oth entered in I	tem B9:	
FIS Profile	X  FIRM	Community Deterr	mined [	_ Other/Sou	rce:			
B11. Indicate eleva	tion datum u	sed for BFE in Item B	9: 🗵 NO	GVD 1929	□ NA\	/D 1988 🔲	Other/Source:	
B12. Is the building	located in a	Coastal Barrier Reso	urces Sy	stem (CBRS	) area c	or Otherwise P	rotected Area (C	DPA)? ☐ Yes ⊠ No
Designation D	ate:		CBRS	☐ OPA				

# **ELEVATION CERTIFICATE**

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

IMPORTANT: In these spaces, copy the corresponding	g information from S	ection A.	FOR IN	SURANC	E COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/o 5219 Wellington Avenue	or Bidg. No.) or P.O. R	oute and Box No.	Policy N	umber:	
T		P Code 3406	Compar	ny NAIC N	lumber
SECTION C – BUILDING E	LEVATION INFORM	ATION (SURVEY RI	QUIRE	))	
C1. Building elevations are based on: Construct	ion Drawings* 🔲 B	uilding Under Constru	iction*		ned Construction
*A new Elevation Certificate will be required when		-			
C2. Elevations – Zones A1–A30, AE, AH, A (with BFE) Complete Items C2.a–h below according to the bui	ilding diagram specifie	d in Item A7. In Puert	AE, AR/A o Rico on	.1–A30, A ly, enter r	AR/AH, AR/AO. meters.
Benchmark Utilized: NJTCM-Ref 0333	<del></del>	m: <u>N.G.V.D. 1929</u>			
Indicate elevation datum used for the elevations in		HOW.			
Datum used for building elevations must be the sar		BFE.			
_					asurement used.
a) Top of bottom floor (including basement, crawls	pace, or enclosure flo	or)		X  feet	meters
b) Top of the next higher floor				x feet	meters
<ul> <li>c) Bottom of the lowest horizontal structural members</li> </ul>	er (V Zones only)		N/A	∐ feet	meters
d) Attached garage (top of slab)			<u>N/A</u>	feet	☐ meters
<ul> <li>e) Lowest elevation of machinery or equipment se (Describe type of equipment and location in Cor</li> </ul>	rvicing the building nments)	<i>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>		× feet	meters
f) Lowest adjacent (finished) grade next to building	g (LAG)		7.3	× feet	meters
g) Highest adjacent (finished) grade next to building	ng (HAG)		9.0	× feet	meters meters
<ul> <li>h) Lowest adjacent grade at lowest elevation of de structural support</li> </ul>	ck or stairs, including		7.6	⊠ feet	meters
SECTION D - SURVEYOR	, ENGINEER, OR AI	RCHITECT CERTIF	CATION		
This certification is to be signed and sealed by a land su I certify that the information on this Certificate represent statement may be punishable by fine or imprisonment u	s mv best efforts to int	erpret the data availa	law to ce ble. I und	ertify eleva erstand ti	ation information. hat any false
Were latitude and longitude in Section A provided by a l			□ c	heck here	e if attachments.
Certifier's Name	License Number				
George Swensen	GS43415				
Title Professional Land Surveyor	all varieties and a second			7	<b>ac</b> e
Company Name The Martinelli Group LLC			1	S	eal
Address 1217 S.Shore Road Suite 106	, vice and Male **			(Carlo and Carlo	ere
City Ocean View	State New Jersey	ZIP Code 08230			
Signiture duese	Date 08-26-2020	Telephone (609) 390-9618	Ext.		
Copy all pages of this Elevation Certificate and all attachme	ents for (1) community	official, (2) insurance	agent/com	ipany, and	d (3) building owner.
Comments (including type of equipment and location, per There are (17) Smart Vents Model #1540-510 located in overhead door (providing protection for 1,700 sq feet of the float-switch system actuated overhead door and (11 Storage Area, which is included in Section A8-a, with an Lowest machinery is the Heater unit located on the Habi	the foundation of the floor area certified by \ ) of the Smart Vents \ elevation of 9.1'.	Milliam Mclees,AIA (S Model #1540-510 are	See Attacl	hed).	
CK by:SCM(fjs)		-			

# **ELEVATION CERTIFICATE**

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

	ORTANT: In these spaces, copy the correspond	ling information fro	om Section A.	FOR INSURA	NCE COMPANY USE
1	ilding Street Address (including Apt., Unit, Suite, an 19 Wellington Avenue	d/or Bldg. No.) or P.	O. Route and Box No.	Policy Number	er:
City	V	State	ZIP Code	Company NA	IC Number
		New Jersey	08406		
	SECTION E – BUILDING EL FOR ZON		MATION (SURVEY NO A (WITHOUT BFE)	OT REQUIRED)	
con	Zones AO and A (without BFE), complete Items E nplete Sections A, B,and C. For Items E1–E4, use re er meters.	I–E5. If the Certifica natural grade, if ava	te is intended to suppo lable. Check the meas	rt a LOMA or LOM urement used. In I	IR-F request, Puerto Rico only,
E1.	Provide elevation information for the following and the highest adjacent grade (HAG) and the lowest a) Top of bottom floor (including basement,			ther the elevation	is above or below
	crawlspace, or enclosure) is	<b></b>	leet   me	eters 🔲 above	or Delow the HAG.
	<ul> <li>Top of bottom floor (including basement, crawlspace, or enclosure) is</li> </ul>		[] feet [] me	eters 🔲 above	or
E2.	For Building Diagrams 6–9 with permanent flood of	penings provided ir	Section A Items 8 and	l/or 9 (see pages ·	1-2 of Instructions),
	the next higher floor (elevation C2.b in the diagrams) of the building is		feet me	eters 🗌 above	or below the HAG.
E3.	Attached garage (top of slab) is		[] feet [] me	eters 🔲 above o	or Delow the HAG.
E4.	Top of platform of machinery and/or equipment servicing the building is		feet me	eters 🗌 above o	or below the HAG.
E5.	Zone AO only: If no flood depth number is availab floodplain management ordinance?	le, is the top of the t No Dunknowr	ottom floor elevated in . The local official mu	accordance with test certify this infor	the community's mation in Section G.
	SECTION F - PROPERTY OW	NER (OR OWNER'S	REPRESENTATIVE)	CERTIFICATION	
The com	property owner or owner's authorized representati munity-issued BFE) or Zone AO must sign here. T	ve who completes S he statements in Se	ections A, B, and E for ctions A, B, and E are	Zone A (without a correct to the best	a FEMA-issued or of my knowledge.
Pro	perty Owner or Owner's Authorized Representative	's Name			
Add	ress	Cit	1	State	ZIP Code
Sigi	naturo	Da	e	Telephone	
	iatuie				
Con	nments				
Con					

# **ELEVATION CERTIFICATE**

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

IMPORTANT: In these spaces, copy the corr			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, S 5219 Wellington Avenue	uite, and/or Bldg. No.) or P.O. Route	and Box No.	Policy Number:
City City of Ventnor	State ZIP Co New Jersey 08406		Company NAIC Number
SECTION	ON G - COMMUNITY INFORMATIO	N (OPTIONAL)	
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, er	n Certificate. Complete the applicable	y's floodplain mar item(s) and sign	nagement ordinance can complete below. Check the measurement
G1. The information in Section C was takengineer, or architect who is authorized that in the Comments area below.)	en from other documentation that hat ed by law to certify elevation informated	is been signed ar ation. (Indicate the	nd sealed by a licensed surveyor, a source and date of the elevation
G2. A community official completed Sect or Zone AO.			
G3. The following information (Items G4-	-G10) is provided for community floor	dplain manageme	ent purposes.
G4. Permit Number	G5. Date Permit Issued		Date Certificate of Compliance/Occupancy Issued
G7. This permit has been issued for:	New Construction Substantial I	Improvement	
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	the building site:	feet	meters Datum
G10. Community's design flood elevation:		feet	meters Datum
Local Official's Name	Title	-w-9.1	•
Community Name  Vantro	Telephone	609 5	327-1 <del>9</del> 87
Signature	Date	9-3-20	Wheet
Comments (including type of equipment and loc	cation, per C2(e), if applicable)	, , , , , , ,	<u> </u>
, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , ,		
			Check here if attachments.

## **BUILDING PHOTOGRAPHS**

## **ELEVATION CERTIFICATE**

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2022

IMPORTANT: In these spaces, co	FOR INSURANCE COMPANY USE Policy Number:		
Building Street Address (including 5219 Wellington Avenue			
City	State	ZIP Code	Company NAIC Number
City of Ventnor	New Jersey	08406	

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.

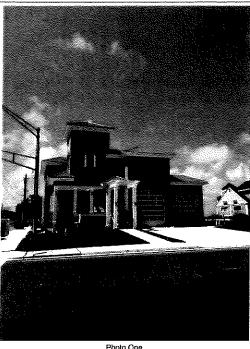


Photo One

Photo One Caption Front View with overhead doors 7-8-20

Clear Photo One

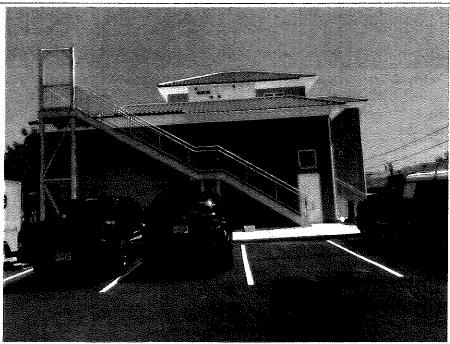


Photo Two

Photo Two Caption Rear View 7-8-20 Clear Photo Two

## **BUILDING PHOTOGRAPHS**

**ELEVATION CERTIFICATE** 

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2022

IMPORTANT: In these spaces, co	FOR INSURANCE COMPANY USE Policy Number:		
Building Street Address (including a 5219 Wellington Avenue			
City	State	ZIP Code	Company NAIC Number
City of Ventnor	New Jersey	08406	

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.

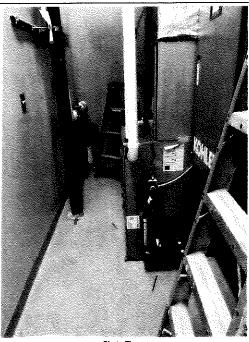


Photo Three

Photo Three Caption Heater Unit 7-8-20

Clear Photo Three

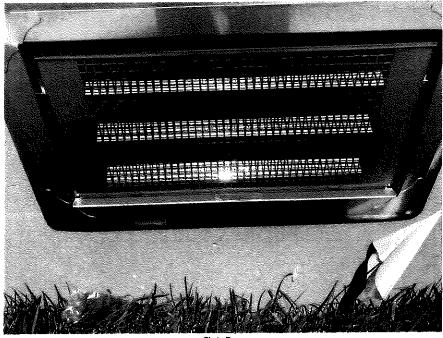


Photo Four

Photo Four Caption Smart Vent 7-8-20

Clear Photo Four



# **Most Widely Accepted and Trusted**

# **ICC-ES Evaluation Report**

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

**ESR-2074** 

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" A Subsidiary of CODE COUNCIL



ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



# **ICC-ES** Evaluation Report

ESR-2074

Reissued February 2019

This report is subject to renewal February 2021.

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A Subsidiary of the International Code Council®

39MM399-00 00 80: NOISIVIC

Section: 08 98 43-Vents/Foundation Flood Vents

report Holder:

SMART VENT PRODUCTS, INC.

#### **EVALUATION SUBJECT:**

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-820; #1640-821; #1640-310; #1640-311; #1540-570; #1640-574; #1640-324; #1640-314 FLOOD VENT SEALING KIT #1640-328

#### 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® (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 U3ÆS

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<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.

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.

## 3.4 Flood Vent Sealing Kit:

The Flood Vent Sealing Kit Model #1540-526 is used with SmartVENT Model #1540-520. It is a Homasote 440 Sound Barrier (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® and FloodVENT®:

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  $\text{m}^2$ ) 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  $\text{m}^2$ ) 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® 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 COMDITIONS 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® 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.? 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

- 5.1 Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised October 2017).
- 5.2 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

www.smartvent.com info@smartvent.com

TABLE 1-MODEL SIZES

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COYERAGE (sq. ft.)
FloodVENT <sup>®</sup>	1540-520	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT <sup>®</sup>	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT® Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT <sup>®</sup>	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® 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 =  $\text{m}^2$ 

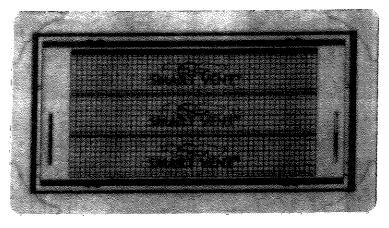


FIGURE 1-SMART VENT: MODEL 1540-510

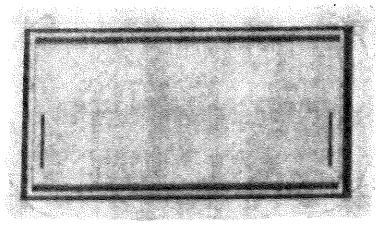


FIGURE 2-SMART VENT MODEL 1540-520

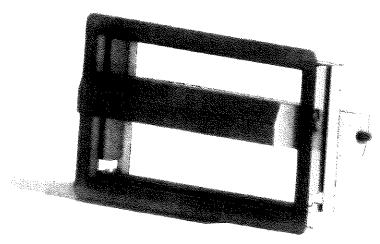


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

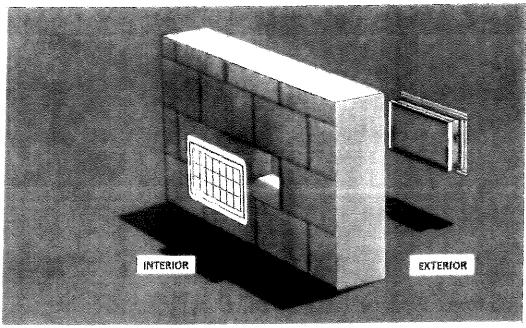


FIGURE 4-FLOOD VENT SEALING KIT



# ICC-ES Evaluation Report

# ESR-2074 CBC and CRC Supplement

Reissued February 2019

This report is subject to renewal February 2021.

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A Subsidiary of the International Code Council®

DIVISIOM: 08 00 00-OPENINGS

Section: 08 96 43—Yenta/Foundation Flood Yenta

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

**SYALUATION SUBJECT:** 

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1840-520; #1540-521; #1840-510; #1840-511; #1540-511; #1540-511; #1540-511; #1540-511; #1540-511; #1540-511; #1540-514
FLOOD VENT SEALING KIT #1840-628

#### 4.0 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 evaluation report ESR-2074, have also been evaluated for compliance with codes noted below.

#### Applicable code adition:

- 2016 California Building Code (CBC)
- 2016 California Residential Code (CRC)

#### 2.0 CONCLUSIONS

## 2.1 CBC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with 2016 CBC Chapter 12, provided the design and installation are in accordance with the 2015 *International Building Code®* (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 12, 16 and 16A, as applicable.

The products recognized in this supplement have not been evaluated under CBC Chapter 7A for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

#### 2.2 CRC:

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 2016 CRC, provided the design and installation are in accordance with the 2015 *International Residential Code*® (IRC) provisions noted in the master report.

The products recognized in this supplement have not been evaluated under 2016 CRC Chapter R337, for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

The products recognized in this supplement have not been evaluated for compliance with the International Wildland-Urban interface Code®

This supplement expires concurrently with the master report, reissued February 2019.





# ICC-ES Evaluation Report

# ESR-2074 FBC Supplement

Reissued February 2019

This report is subject to renewal February 2021.

WWW.100-83.070 | (800) 423-6587 | (562) 599-0543

A Subsidiary of the International Code Council®

DIVISION: 08 00 00-0PEMMGS

Section: 03 95 43-VentalFoundation Flood Venta

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS \$1840-520; \$1840-521; \$1840-510; \$1840-511; #1840-570; #1840-574; #1840-824; #1840-814 FLOOD VENT BEALING KTT #1540-526

#### 4.6 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 aditions:

- 2017 Florida Building Code—Building
- 2017 Florida Building Code—Residential

#### 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 *Florida Building Code—Building* and the FRC, provided the design and installation are in accordance with the 2015 *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 Florida Building Code—Building and the Florida Building Code—Residential.

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 February 2019.







Mr. George Swanson, PLS The Martinelli Group 1217 Shore Rd, Suite 106 Ocean View, NJ 08230

# RE: Ventnor City Firehouse No. 2- Flood Venting

## Dear George:

Thank you for transmitting the Flood Elevation Certificate for the above mentioned property. As noted in your Certificate, the property has been provided with a total of (11) 1500 series smart vents for the apparatus bay areas, providing 2,200 square feet of wet-floodproofing protection. The remaining 752 square feet of coverage is provided via a float-switch system actuating one overhead door during a flood event. This opening provides a calculated flood protection for an additional 1,700 square feet of floor area, thus providing a total equivalent area of protection of 3,900 square feet, which exceeds the effective floor area of 2,952 square feet indicated.

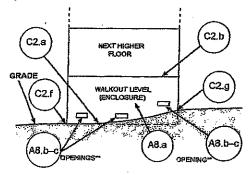
Should you have any additional questions regarding the enclosed, please do not hesitate to contact our office.



#### DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least 1 side is at or above grade. The principal use of this building is located in the elevated floors of the building.

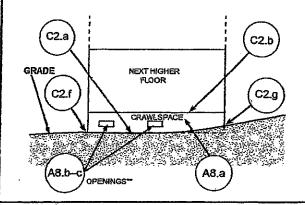
Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings\*\* present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.



#### DIAGRAM 8

All buildings elevated on a crawlspace with the floor of the crawlspace at or above grade on at least 1 side, with or without an attached garage.

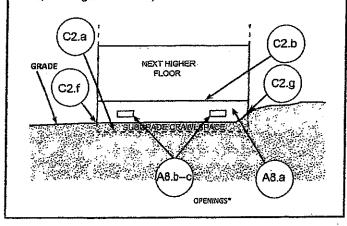
**Distinguishing Feature** – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawlspace is with or without openings\*\* present in the walls of the crawlspace. Indicate information about crawlspace size and openings in Section A – Property Information.



#### **DIAGRAM 9**

All buildings (other than split-level) elevated on a subgrade crawlspace, with or without attached garage.

Distinguishing Feature — The bottom (crawlspace) floor is below ground level (grade) on all sides.\* (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, or the crawlspace floor is more than 2 feet below the grade [LAG] on all sides, use Diagram 2A or 2B.)



- A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.
- \*\* An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention.

  Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.

