## 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 official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION				OR INSUF	RANCE COMPANY USE
A1. Building Owner's Name The Materazzi's				Policy Num	ber:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. #122 North Osborne Avenue				Company NAIC Number:	
City CITY OF MARGATE	State ZIP Code New Jersey 08402				
A3. Property Description (Lot and Block 316 Lot 13	Block Numbers, Tax F	Parcel Number, Legal De	scription, etc.)		
A4. Building Use (e.g., Residentia	l, Non-Residential, Add	dition, Accessory, etc.)	RESIDENTIAL		
A5. Latitude/Longitude: Lat. 39.3	287 Lo	ing. <u>-</u> 74.5092	Horizontal Datum:	□ NAD 1	927 X NAD 1983
A6. Attach at least 2 photographs	of the building if the Co	ertificate is being used to	obtain flood insurar	ice.	
A7. Building Diagram Number	8				¥
A8. For a building with a crawlspa	ce or enclosure(s):				
<ul> <li>a) Square footage of crawlspa</li> </ul>	ace or enclosure(s)	1,239 sq ft			
b) Number of permanent flood	d openings in the crawl	lspace or enclosurė(s) w	ithin 1.0 foot above a	djacent gra	ade7
c) Total net area of flood oper	nings in A8.b1,400	sq in			
d) Engineered flood openings	? X Yes No				
A9. For a building with an attached garage:					
a) Square footage of attached garage0 sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 0					
c) Total net area of flood openings in A9.b 0 sq in					
d) Engineered flood openings?  Yes  No					
Ly anglited at the area of a larger to a l					
		URANCE RATE MAP	(FIRM) INFORMAT	ION	
B1. NFIP Community Name & Com CITY OF MARGATE & 345304	Control of the Contro	B2. County Name ATLANTIC COUN	TY		B3. State New Jersey
B4. Map/Panel B5. Suffix E Number	36. FIRM Index Date	37. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	(Zor	e Flood Elevation(s) ne AO, use Base
345304/0001 C 1	10/18/1983 1	10/18/1983	A8**	10**	od Depth)
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:					
FIS Profile X FIRM Community Determined Other/Source:					
B11. Indicate elevation datum used for BFE in Item B9: X NGVD 1929 NAVD 1988 Other/Source:					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)?   Yes   No					
Designation Date: CBRS OPA					

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IMPORTANT: In these spaces, copy the corresponding information from Se	FOR INSURANCE COMPANY USE				
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Ro #122 North Osborne Avenue	Policy Number:				
City State ZIF CITY OF MARGATE New Jersey 084	Code 402	Company NAIC Number			
SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)					
C1. Building elevations are based on:   Construction Drawings*   Bu  *A new Elevation Certificate will be required when construction of the build  C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BE)  Complete Items C2.a–h below according to the building diagram specified  Benchmark Utilized:   Describe private   Vertical Datum  Indicate elevation datum used for the elevations in items a) through h) below  NGVD 1929   NAVD 1988   Other/Source:  Datum used for building elevations must be the same as that used for the  a) Top of bottom floor (including basement, crawlspace, or enclosure floor  b) Top of the next higher floor  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 (HAG)	ilding Under Construiting is complete. BFE), AR, AR/A, AR/ in Item A7. In Puert I: NGVD29 Dw. BFE.	Check the measurement used.    X   Finished Construction			
	9. <u>0</u> N/A	X feet meters			
<ul> <li>h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support</li> </ul>		X feet  meters			
SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION					
This certification is to be signed and sealed by a land surveyor, engineer, or are I certify that the information on this Certificate represents my best efforts to inte statement may be punishable by fine or imprisonment under 18 U.S. Code, Sec Were latitude and longitude in Section A provided by a licensed land surveyor?	rpret the data availa ction 1001. —	law to certify elevation information.  ble. I understand that any false  Check here if attachments.			
Certifier's Name License Number Paul M. Koelling, PLS, CFM NJ24GS 04328800					
Title Licensed Land Surveyor  Company Name Paul Koelling & Associates, LLC NJ C.O.A. No. 24GA28256300  Address 2161 Shore Road  City State Linwood New Jersey  Signature Date	Place Seal Here				
7-9-18	Telephone (609) 927-0279				
Copy all pages of this Elevation Certificate and all attachments for (1) community of Comments (including type of equipment and location, per C2(e), if applicable)  *A8b.) Smart Vents Model #1540-510 engineered for 200 square inches of net at *B8 & B9.) FEMA Pre-FIRM Zone "AE"Base Flood Elevation 8 ft. (NAVD88)  ***C2a.) crawlspace  ****C2e.) exterior air unit (elev 16.8)ductwork (elev 10.7)	area each				

# **ELEVATION CERTIFICATE**

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

MPORTANT: 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. #122 North Osborne Avenue			o. Po	licy Number:	
City CITY OF MARGATE	State New Jersey	ZIP Code 08402	Co	mpany NAIC Number	
SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)					
For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.  E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).					
a) Top of bottom floor (including basement, crawlspace, or enclosure) is	adjacent grade (LF		meters	☐ above or ☐ below the HAG.	
b) Top of bottom floor (including basement, crawlspace, or enclosure) is		feetr		☐ above or ☐ below the LAG.	
E2. For Building Diagrams 6–9 with permanent flood the next higher floor (elevation C2.b in the diagrams) of the building is	openings provided	in Section A Items 8 ai		ee pages 1–2 of Instructions),  ☐ above or ☐ below the HAG.	
E3. Attached garage (top of slab) is	·	feet r	meters	above or below the HAG.	
E4. Top of platform of machinery and/or equipment servicing the building is		feet r	meters	☐ above or ☐ below the HAG.	
E5. Zone AO only: If no flood depth number is available floodplain management ordinance? Yes				ance with the community's fy this information in Section G.	
SECTION F – PROPERTY OW	NER (OR OWNER	'S REPRESENTATIV	E) CERTI	FICATION	
The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.					
Property Owner or Owner's Authorized Representative's Name					
Address	С	ity	State	ZIP Code	
Signature	D	ate	Teleph	one	
Comments					
				Check here if attachments.	
				one or note in accomments.	

# **ELEVATION CERTIFICATE**

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

IMPORTANT: In those spaces, copy the corr	oon on din o info we at less for	0 0 1	Expiration Bate. November 30, 2010		
IMPORTANT: In these spaces, copy the corresponding information from Section A.  Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			FOR INSURANCE COMPANY USE		
#122 North Osborne Avenue	uite, and/or Bldg. No.) or P.	O. Route and Box N	o. Policy Number:		
City	State	ZIP Code	Company NAIC Number		
CITY OF MARGATE	New Jersey	08402			
SECTION	ON G – COMMUNITY INFO	RMATION (OPTION	AL)		
Sections A, B, C (or E), and G of this Elevation	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 Zone AO.	on E for a building located i	n Zone A (without a	FEMA-issued or community-issued BFE)		
G3. The following information (Items G4-	G10) is provided for commu	unity floodplain mana	agement purposes.		
G4. Permit Number	G5. Date Permit Issued		G6. Date Certificate of Compliance/Occupancy Issued		
G7. This permit has been issued for:	New Construction Sub	stantial Improvemer	nt		
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	aloutino Tit	e	EM		
Community Name  MANGET	Te Te	ephone $609 - 8$	EZ 1918		
Signature C/Cl	// Da	te /	12		
Comments (including type of equipment and loc	cation, per C2(e), if applicab	le)			
5					
в.					
			Check here if attachments.		



# **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 <a href="https://www.smartvent.com/">www.smartvent.com/</a> 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<sup>®</sup> (IBC)
- 2015, 2012, 2009 and 2006 International Residential Code<sup>®</sup> (IRC)
- 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. 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<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® 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 <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® 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®	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 =  $m^2$ 

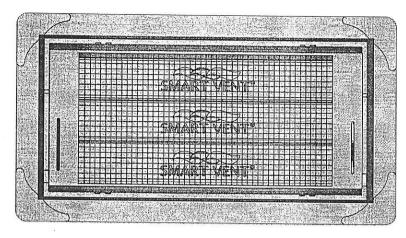


FIGURE 1—SMART VENT: MODEL 1540-510

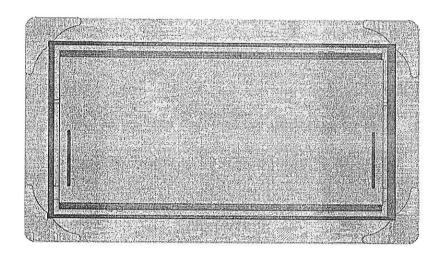


FIGURE 2—SMART VENT MODEL 1540-520

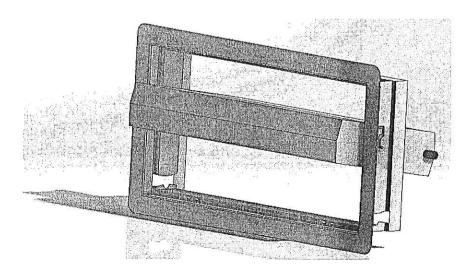


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

**Building Photographs** 

	See Instructions for Item A6.		For Insurance Company Use:
Building Street Address (incl #122 North Osborne	uding Apt., Unit, Suite, and/or Bldg.) No. or P.C <b>Avenue</b>	). Route and Box No.	Policy Number
City	State	ZIP Code	Company NAIC Number
Margate	New Jersey	08402	26 2057

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)





Right Side View - Date of Photograph: (See Photo Stamp)

Left Side View – Date of Photograph: (See Photo Stamp)