# 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.

A1. Building Owner's Name James Flagg  A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 21 N. Lancaster Avenue  City Margate New Jersey  A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Block 213.0 Lot 3  A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)  A5. Latitude/Longitude: Lat. N 39°19'48.3" Long. W 74°30'27.7" Horizontal Datum: NAD 1927 NAD 198  A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.  A7. Building Diagram Number  7				
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  21 N. Lancaster Avenue  City State ZIP Code New Jersey 08402  A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)  Block 213.0 Lot 3  A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential  A5. Latitude/Longitude: Lat. N 39°19'48.3" Long. W 74°30'27.7" Horizontal Datum: NAD 1927 NAD 198  A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.				
Box No.  21 N. Lancaster Avenue  City Margate New Jersey New Jersey  A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Block 213.0 Lot 3  A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)  A5. Latitude/Longitude: Lat. N 39°19'48.3" Long. W 74°30'27.7" Horizontal Datum: NAD 1927 NAD 198  A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.				
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A7 Building Diagram Number 7				
A8. For a building with a crawlspace or enclosure(s):				
a) Square footage of crawlspace or enclosure(s) 1026.00 sq ft				
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 6				
c) Total net area of flood openings in A8.b sq in				
d) Engineered flood openings? 🗵 Yes 🗌 No				
A9. For a building with an attached garage:				
a) Square footage of attached garage N/A sq ft				
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade N/A				
c) Total net area of flood openings in A9.b N/A sq in				
d) Engineered flood openings?				
a) Engineered need openings:				
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION				
B1. NFIP Community Name & Community Number B2. County Name B3. State				
Margate 345304 Atlantic New Jersey				
B4. Map/Panel Number B5. Suffix B6. FIRM Index Date B7. FIRM Panel Effective/ Zone(s) B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth				
34001C434 F 08-28-2018 Revised Date 08-28-2018 AE 9.00				
D40. Indicate the serves of the Dass Flood				
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:  FIS Profile   FIRM   Community Determined   Other/Source:				
B11. Indicate elevation datum used for BFE in Item B9: 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				

# **ELEVATION CERTIFICATE**

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

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. 21 N. Lancaster Avenue				Policy Number:		
City Stat Margate New	e ZIP / Jersey 084	Code 02	Company	NAIC N	lumber	
SECTION C – BUILDING ELE	EVATION INFORMA	ΠΟΝ (SURVEY RE	QUIRED)			
SECTION C – BUILDING ELE  C1. Building elevations are based on: Construction  *A new Elevation Certificate will be required when concern and the complete Items C2.a—h below according to the build Benchmark Utilized: Local BM  Indicate elevation datum used for the elevations in item NGVD 1929 NAVD 1988 Other/S Datum used for building elevations must be the same a) Top of bottom floor (including basement, crawlspan) Top of the next higher floor  c) Bottom of the lowest horizontal structural members d) Attached garage (top of slab)  e) Lowest elevation of machinery or equipment serve (Describe type of equipment and location in Committed in the content of the co	n Drawings*	ding Under Constructions is complete. FE), AR, AR/A, AR/A in Item A7. In Puerto NAVD 1988 w.	Check 8.0  N/A  N/A	G Finish –A30, A r, enter n	ed Construction  R/AH, AR/AO. neters.  asurement used.  meters  meters  meters  meters  meters  meters  meters	
f) Lowest adjacent (finished) grade next to building	•		8.0	] feet	meters	
g) Highest adjacent (finished) grade next to building	(HAG)		8.2	feet	meters	
<ul> <li>h) Lowest adjacent grade at lowest elevation of deck structural support</li> </ul>	or stairs, including		8.0	feet	☐ meters	
SECTION D – SURVEYOR,	ENGINEER, OR ARC	HITECT CERTIFIC	CATION			
This certification is to be signed and sealed by a land surval certify that the information on this Certificate represents statement may be punishable by fine or imprisonment und Were latitude and longitude in Section A provided by a lice	my best efforts to inter ler 18 U.S. Code, Sec	oret the data availab ion 1001. —	ole. I undei	rstand th	tion information. at any false if attachments.	
Certifier's Name James R. Boney, PLS	License Number					
Title Professional Land Surveyor  Company Name James R. Boney & Assoc.  Address 13 Stone Mill Court  City Egg Harbor Township  Signature	State New Jersey Date	ZIP Code 08234 Telephone	Ext.	S	ace eal ere	
AMMA	08-10-2020	(609) 788-8013				
Copy all pages of this E evation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.  Comments (including type of equipment and location, per C2(e), if applicable)  New construction 2.5 story dwelling. A/C outside on platform. Other mechanicals inside above the BFE. All vents are Smart Vents model 1540-510. The ground floor is parking and storage.						

# **ELEVATION CERTIFICATE**

OMB No. 1660-0008

Expiration Date: November 30, 2022 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 21 N. Lancaster Avenue Policy Number: Citv State ZIP Code Company NAIC Number Margate New Jersey 08402 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, 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 ☐ feet ☐ meters ☐ above or ☐ below the HAG. b) Top of bottom floor (including basement, crawlspace, or enclosure) is ☐ feet ☐ meters ☐ above or ☐ below the LAG. E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the diagrams) of the building is feet meters above or below the HAG. E3. Attached garage (top of slab) is ☐ feet ☐ meters ☐ above or ☐ below the HAG. E4. Top of platform of machinery and/or equipment servicing the building is ☐ feet ☐ meters ☐ above or ☐ below the HAG. E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? 🔲 Yes 🔲 No 🔲 Unknown. The local official must certify this information in Section G. SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION 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 City State ZIP Code Signature Date Telephone Comments Check here if attachments.

# **ELEVATION CERTIFICATE**

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

IMPORTANT: In these spaces, copy the correspondin	FOR INSURANCE COMPANY USE			
Building Street Address (including Apt., Unit, Suite, and/o 21 N. Lancaster Avenue	Policy Number:			
,	ate ZIP ( ew Jersey 084)		Company NAIC Number	
SECTION G – CO	OMMUNITY INFORMATI	ON (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 or Zone AO.	building located in Zone	A (without a FEMA	N-issued or community-issued BFE)	
G3. The following information (Items G4–G10) is pr	ovided for community flo	odplain manageme	ent purposes.	
G4. Permit Number G5. Dat	e Permit Issued		Date Certificate of compliance/Occupancy Issued	
G7. This permit has been issued for:	nstruction  Substantia	Improvement		
G8. Elevation of as-built lowest floor (including basemer of the building:	nt)	feet	meters Datum	
G9. BFE or (in Zone AO) depth of flooding at the buildin	g site:	feet	meters Datum	
G10. Community's design flood elevation:		feet	meters Datum	
Community Name  Title  Title  Community Name  Telephone  MANCATE  Community Name  Telephone				
Community Name  MARCA	Telephone ${\mathcal T} {\mathcal E}$	605.82	2-1972	
Signature	Date		10/1020	
Comments (including type of equipment and location, per	C2(e), if applicable)			
			* .	
			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, cop	FOR INSURANCE COMPANY USE		
Building Street Address (including A	Policy Number:		
21 N. Lancaster Avenue			
City	State	ZIP Code	Company NAIC Number
Margate	New Jersey	08402	

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 08-10-20

Clear Photo One



Photo Two

Photo Two Caption Rear 08-10-20

Clear Photo Two

## **BUILDING PHOTOGRAPHS**

**Continuation Page** 

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

**ELEVATION CERTIFICATE** 

IMPORTANT: In these spaces, copy	FOR INSURANCE COMPANY USE		
Building Street Address (including Apt 21 N. Lancaster Avenue	Policy Number:		
City Margate	State New Jersey	ZIP Code 08402	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

Photo Three Caption Flood vent (Typical)

Clear Photo Three

Photo Four

Photo Four

Photo Four Caption

Clear Photo Four



# **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

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# **ICC-ES Evaluation Report**

**ESR-2074** 

Reissued February 2019

This report is subject to renewal February 2021.

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:

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

#### 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® (IECC)
- 2013 Abu Dhabi International Building Code (ADIBC)<sup>†</sup>

 $^\dagger\text{The ADIBC}$  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® 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 $^{\otimes}$  Model #1540-520. It is a Homasote 440 Sound Barrier $^{\otimes}$  (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 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<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® 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.)	COVERAGE (sq. ft.)
FloodVENT®	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®	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® 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

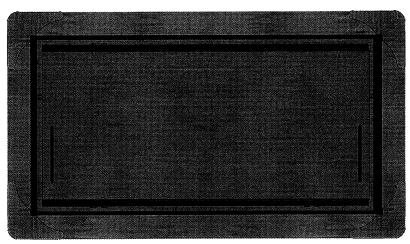


FIGURE 2—SMART VENT MODEL 1540-520

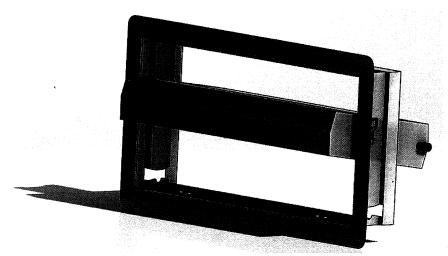


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

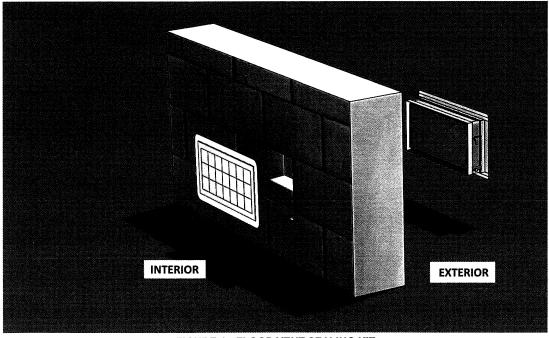


FIGURE 4—FLOOD VENT SEALING KIT