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

MAR 28 2023

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

# Important: Policy the instructions on page

Copy all pages of this Elevation Certificate and all atta

	Elevation C	refuncate and all allac	aiments	or (1) commi	inity official, (2) ii	nsurance agent/co	empany, and (3) building owne
	SEC	CTION A - PROPER					NSURANCE COMPANY USI
A1. Building Owne Harbaugh Custom							Number:
Box No. 321 99th Street	Address (II	ncluding Apt., Unit, Si	uite, and	or Bldg. No.)	or P.O. Route a	nd Compa	any NAIC Number:
City				State		ZIP Co	ado
Stone Harbor				New J	ersey	08247	
A3. Property Desc Block 99.04 Lots 1	ription (Lot a 28 & 130	and Block Numbers,	Tax Parc	el Number, L	egal Description	, etc.)	
A4. Building Use (e	e.g., Reside	ential, Non-Residential	l, Additio	n, Accessory	, etc.) Reside	ntial	
		N 39°03'09.90"					IAD 1927 🔀 NAD 1983
		phs of the building if the					Z Z
A7. Building Diagra							
A8. For a building v	vith a crawls	space or enclosure(s)	:				
		Ispace or enclosure(s			1648.00 sq ft		
b) Number of p	ermanent flo	ood openings in the c	rawlspac	The second secon	The state of the s	oot above adiacen	nt grade 9
		penings in A8.b		1800.00 sqi			9,000
d) Engineered			No	The state of the s			
A9. For a building wi	ith an attach	ned garage:					
		ned garage		N/A sq1	it		
		ood openings in the at				discont sundo Al/	Α
c) Total net area			adorica g			ojaceni grade 1977	A
d) Engineered fl		***************************************	.1	N/A so	l in		
a) Engineered ii	ood openin	gs? Yes 🗓 Yes	NO				
	SE	CTION B - FLOOD	INSURA	NCE RATE	MAP (FIRM) IN	FORMATION	
B1. NFIP Community	Name & C	Community Number		B2. County			B3. State
Borough of Stone Ha	rbor #3453	23		Cape May			New Jersey
34. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	Effe	RM Panel ective/	B8. Flood Zone(s)	B9. Base Floo (Zone AO,	od Elevation(s) use Base Flood Depth)
34009C0242	F	10-05-2017	10-05-2	vised Date 2017	AE	9	
B10. Indicate the sou	urce of the E	Base Flood Elevation	(BFF) da	ata or hase flo	and depth entere	d in Itam PO:	
		Community Deterr				a iii itein bs.	
B11. Indicate elevation	on datum us	sed for BFE in Item B	9: 🔲 NO	GVD 1929 [	X NAVD 1988	Other/Source	ce:
B12. Is the building lo	ocated in a	Coastal Barrier Resor	urces Sv	stem (CBRS)	area or Otherwi	se Protected Area	a (OPA)? Yes X No
Designation Da				OPA	and with	SS. TOLOGGI AIG	Tes XINO
•	***************************************		-0.10				

#### OMB No. 1660-0008 **ELEVATION CERTIFICATE** 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. Policy Number: 321 99th Street City State ZIP Code Company NAIC Number Stone Harbor **New Jersey** 08247 SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) C1. Building elevations are based on: Construction Drawings\* ☐ Building Under Construction\* Finished Construction \*A new Elevation Certificate will be required when construction of the building is complete. C2. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete Items C2.a-h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters. Benchmark Utilized: PID# DP1524 Vertical Datum: NAVD 1988 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 BFE. Check the measurement used. a) Top of bottom floor (including basement, crawlspace, or enclosure floor) 6.6 X feet meters b) Top of the next higher floor 11.2 X feet meters c) Bottom of the lowest horizontal structural member (V Zones only) N/A X feet meters d) Attached garage (top of slab) N/A X feet meters e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) 11.2 X feet meters f) Lowest adjacent (finished) grade next to building (LAG) 6.5 × feet meters g) Highest adjacent (finished) grade next to building (HAG) 7.3 X feet meters h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support 6.5 X feet meters SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Were latitude and longitude in Section A provided by a licensed land surveyor? Check here if attachments. Certifier's Name License Number Robert K. Sanchez 43294 Title Professional Land Surveyor Company Name **CME** Associates Address Here 203 South Main Street City State ZIP Code Cape May Court House New Jersey 08210 Signature Date Telephone Ext. 03-27-2023 (609) 465-3333 Copy all pages of this Elevation 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) The lowest equipment visible at the time of the Survey was the HVAC Unit. The foundation vents are all Smart Flood Vents Model #1540-510. Project #M2100059.02 Revised-B4

# **ELEVATION CERTIFICATE** 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. **Policy Number:** 321 99th Street City State **ZIP Code** Company NAIC Number Stone Harbor **New Jersey** 08247 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 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 next higher floor (elevation C2.b in 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 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.

OMB No. 1660-0008

ELEVATION CERTIFICATE			OMB No. 1660-0008 Expiration Date: November 30, 2022
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Building Street Address (including Apt., Unit, 321 99th Street	Suite, and/or Bldg. No.) or I	P.O. Route and Box No.	Policy Number:
City Stone Harbor	State New Jersey	ZIP Code 08247	Company NAIC Number
SECT	ION G - COMMUNITY INF	ORMATION (OPTIONAL)	
The local official who is authorized by law or of Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, e	n Cermicale Complete the	community's floodplain mapplicable item(s) and sig	anagement ordinance can complete in below. Check the measurement
G1. The information in Section C was ta engineer, or architect who is authori data in the Comments area below.)	ken from other documentat zed by law to certify elevati	ion that has been signed a on information. (Indicate t	and sealed by a licensed surveyor, he source and date of the elevation
G2. A community official completed Sec or Zone AO.	tion E for a building located	in Zone A (without a FEM	A-issued or community-issued BFE)
G3. The following information (Items G4	-G10) is provided for comm	nunity floodplain managen	nent purposes.
G4. Permit Number	G5. Date Permit Issued		Date Certificate of
22-975	02/03/12	_	Compliance/Occupancy Issued 3.31-23
G7. This permit has been issued for:	/ ☑New Construction ☐ Su	bstantial Improvement	
G8. Elevation of as-built lowest floor (includin of the building:	g basement)	{feet	meters Datum NAVO 89
G9. BFE or (in Zone AO) depth of flooding at		9 🔀 feet	meters Datum NAUD 88
G10. Community's design flood elevation:	Higher of BFE+	2 or 11 A feet	meters Datum NAVD 88
Local Official's Name Raymond Poudouer	Till		01.5 11.5
Raymond Pordrier	Te	elephone	Plain Administration
Stone Harbor	609-31	68-6814 ate	
Signature /	Da	ite	
The Original Control of the Control	3/28/2	+2	
Comments (including type of equipment and loc	cation, per C2(e),'if applicab	ole)	,
			Check here if attachments.

## **BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

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

			Expiration Date. November 30, 2022
IMPORTANT: In these spaces, copy the c	orresponding information	from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit 321 99th Street	t, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:
City	State	ZIP Code	Company NAIC Number
Stone Harbor	New Jersey	08247	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.



Photo One

**Photo One Caption** FRONT VIEW (03-21-2023)

**ELEVATION CERTIFICATE** 

Clear Photo One



Photo Two

Photo Two Caption REAR VIEW (03-21-2023)

Clear Photo Two

# **ELEVATION CERTIFICATE**

# **BUILDING PHOTOGRAPHS**

Continuation Page

OMB No. 1660-0008

	Continuatio	3	Expiration Date: November 30, 2022
IMPORTANT: In these spaces, copy the c	corresponding information	from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Uni 321 99th Street	t, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:
City	State	ZIP Code	Company NAIC Number
Stone Harbor	New Jersey	08247	

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 RIGHT SIDE VIEW (03-21-2023)

Clear Photo Three



Photo Four

Photo Four Caption LEFT SIDE VIEW (03-21-2023)

Clear Photo Four



# **ICC-ES Evaluation Report**

ESR-3560

Reissued September 2019

This report is subject to renewal September 2020.

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:

FLOOD FLAPS®, LLC

**EVALUATION SUBJECT:** 

FLOOD FLAPS® AUTOMATIC FLOOD VENTS: MODELS FFWF12; FFNF12; FFWF08; FFNF08; FFWF05; FFNF05

#### 1.0 EVALUATION SCOPE

## Compliance with the following codes:

- 2018, 2015, 2012 and 2009 International Building Code® (IBC)
- 2018, 2015, 2012 and 2009 International Residential Code<sup>®</sup> (IRC)

#### Properties evaluated:

- Physical operation
- Water flow
- Weathering

#### 2.0 USES

Flood Flaps® automatic flood vents are used to provide for the equalization of hydrostatic flood forces on exterior walls. Certain models also allow natural ventilation.

## 3.0 DESCRIPTION

#### 3.1 General:

Flood Flaps® automatic flood vents are engineered mechanically operated flood vents (FVs) that automatically allow flood waters to enter and exit enclosed areas. The FVs are constructed of ABS plastic which serves as the FV's housing, and a front grill that contains an anodized metal screen imbedded in polypropylene plastic. On contact with rising flood water, the grill will disengage from its secured position, allowing flood water and debris to flow through in either direction. The FVs are available in two series as described in Section 3.3.

The sealed series models contain two rubber flaps that close the FV to the passage of air when using with conditioned areas or sealed crawl spaces. In the same manner as the grill, the two rubber flaps are pushed open by water pressure, allowing water and debris to flow through the FV in either direction. See Figure 1 for an illustration of the Flood Flaps® automatic FV.

### 3.2 Engineered Opening:

The Flood Flaps® automatic FVs comply with the design principle noted in Sections 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 (2018 and 2015 IBC and IRC) [Section 2.6.2.2 of ASCE/SEI 24-05 (2012 and 2009 IBC and IRC)] for a rate of rise and fall of 5 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Flood Flaps® automatic FVs must be installed in accordance with Section 4.0.

## 3.3 Flood Vent Series Models:

Flood Flaps® automatic FVs are available in two series with multiple models and sizes as described in Table 1. The sealed series models, designated FFWF, include two rubber flaps for the prevention of air flow. The multipurpose series, designated FFNF, omits the rubber flaps.

#### 3.4 Natural Ventilation:

Flood Flaps® automatic FV models FFNF12, FFNF08, FFNF05, and FFNF02 have metal screens with 1/4 inch by 1/4 inch (6 mm by 6 mm) openings and provide 37 square inches (0.02 m²) of net free opening to supply natural ventilation for under-floor ventilation. Flood Flaps® automatic FV models FFWF12, FFWF08, and FFWF05 have not been evaluated for use as openings for under-floor ventilation.

# 4.0 DESIGN AND INSTALLATION

Flood Flaps® automatic FVs are designed to be installed into walls of existing or new construction. Installation of the FVs must be in accordance with the manufacturer's instructions, the applicable code and this report. Flood Flaps® automatic FVs can be installed in wood, masonry and concrete walls up to a thickness of 12 inches (305 mm). In order to comply with the engineered opening design principle noted in Sections 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 (2018 and 2015 IBC and IRC) [Section 2.6.2.2 of ASCE/SEI 24-05 (2012 and 2009 IBC and IRC)], the Flood Flaps® 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 220 square feet (20 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305 mm) above grade.

## 5.0 CONDITIONS OF USE

The Flood Flaps® automatic flood vents described in this report comply with, or are suitable alternatives to what is



- 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.

# 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® 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 February 2021).
- 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 described 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

TABL	pro	4 884	755	01750
IABL	.=	1	JUEL	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® 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<sup>2</sup>

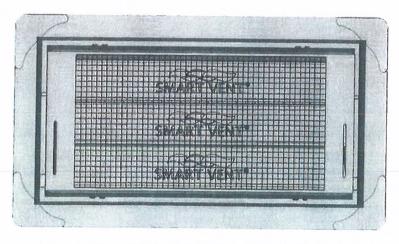


FIGURE 1-SMART VENT: MODEL 1540-510