# **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	INFOR	MATION			RANCE COMPANY USE
A1. Building Owner's Name					Policy Num	nber:
Brandywine Developers						
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.				Company N	NAIC Number:	
10205 First Avenue						
City		1	State		ZIP Code	
Stone Harbor			New Jers		08247	
A3. Property Description Block 102.02 Lots 31, 32	(Lot and Block Numbers, Ta	x Parcel	Number, Leg	gal Description, et	c.)	
A4. Building Use (e.g., Re	esidential, Non-Residential,	Addition,	Accessory, e	etc.) <u>residentia</u>	l	
A5. Latitude/Longitude:	Lat. 39° 3′ 11″	Long. 74	1° 45' 21"	Horizonta	l Datum: 🔲 NAD	1927 🗵 NAD 1983 ·
A6. Attach at least 2 phot	ographs of the building if the	e Certifica	ate is being u	sed to obtain floo	d insurance.	
A7. Building Diagram Nun	nber 8					
A8. For a building with a c	crawlspace or enclosure(s):					
a) Square footage of	crawispace or enclosure(s)		1	578.00 sqft		
b) Number of perman	ent flood openings in the cra	wispace	or enclosure	(s) within 1.0 foot	above adjacent gra	ade 9
c) Total net area of flo	ood openings in A8.b	1	800.00 sq in			
d) Engineered flood of	ppenings? 🛛 Yes 🔲 N	lo				
A9. For a building with an	attached darage:					
a) Square footage of			sq ft			
	ent flood openings in the att	oobod a	•	I 0 foot above adi	acent grade	
-	ood openings in A9.b		sq	II i		
d) Engineered flood o	penings? Yes N	lo				
	SECTION B - FLOOD I	NSURA	NCE RATE	MAP (FIRM) INF	ORMATION	
B1. NFIP Community Nam	ne & Community Number		B2. County	Name		B3. State
Borough of Stone Harbor			Cape May			New Jersey
B4. Map/Panel B5. S	uffix B6. FIRM Index Date	Effe	M Panel ective/ vised Date	B8. Flood Zone(s)	B9. Base Flood E (Zone AO, us	Elevation(s) se Base Flood Depth)
34009C0242F F	10-05-2017	10-05-2		AE	8'	
	of the Base Flood Elevation				in Item B9:	
☐ FIS Profile 🗵 F	IRM Community Deter	mined [	Other/Sou	rce:		
B11. Indicate elevation da	atum used for BFE in Item B	9: 🔲 N	GVD 1929	X NAVD 1988	Other/Source:	
B12. Is the building locate	ed in a Coastal Barrier Resc	ources Sy	ystem (CBRS	) area or Otherwi	se Protected Area (	(OPA)? 🗌 Yes 🗵 No
Designation Date: _		CBRS	☐ OPA			
_						

IMPORTANT: In these spaces, copy the correspon	ding information from Sec	tion A.	FOR INS	URANC	E COMPANY USE
Building Street Address (including Apt., Unit, Suite, ar 10205 First Avenue	nd/or Bldg. No.) or P.O. Rou	te and Box No.	Policy No	ımber:	
City Stone Harbor	State ZIP New Jersey 0824	Code 17	Company	y NAIC I	Number
SECTION C - BUILDING	ELEVATION INFORMAT	ION (SURVEY R	EQUIRED	)	The state of the s
*A new Elevation Certificate will be required wh C2. Elevations – Zones A1–A30, AE, AH, A (with B Complete Items C2.a–h below according to the Benchmark Utilized:  Indicate elevation datum used for the elevations  NGVD 1929 X NAVD 1988 Of	FE), VE, V1–V30, V (with BI building diagram specified i Vertical Datum: s in items a) through h) belower/Source:	ng is complete. FE), AR, AR/A, AR n Item A7. In Puerl 1988 w.	/AE, AR/A	 1_A30, A	hed Construction AR/AH, AR/AO. meters.
Datum used for building elevations must be the	same as that used for the B	FE.	Check	k the me	easurement used.
a) Top of bottom floor (including basement, cra	wlspace, or enclosure floor)		_	feet	meters
b) Top of the next higher floor			11.0	x feet	meters meters
c) Bottom of the lowest horizontal structural me	ember (V Zones only)		<u>N/A</u> [3	✓ feet	meters
d) Attached garage (top of slab)			N/A	√ feet	meters
<ul> <li>e) Lowest elevation of machinery or equipmen (Describe type of equipment and location in</li> </ul>	t servicing the building Comments)		11.0	☑ feet	meters
f) Lowest adjacent (finished) grade next to bui	lding (LAG)		7.8	x feet	meters meters
g) Highest adjacent (finished) grade next to bu	ilding (HAG)		8.6	✓ feet	meters
<ul> <li>h) Lowest adjacent grade at lowest elevation of structural support</li> </ul>	f deck or stairs, including		7.5	☑ feet	meters
SECTION D - SURVEY	OR, ENGINEER, OR ARC	HITECT CERTIF	ICATION		
This certification is to be signed and sealed by a lan I certify that the information on this Certificate repre- statement may be punishable by fine or imprisonme Were latitude and longitude in Section A provided by	sents my best efforts to inter nt under 18 U.S. Code, Sec	pret the data availation 1001.	able. I unde	erstand t	ration information.  that any false  e if attachments.
Certifier's Name Gary Lee Thomas	License Number 23921				
Title Professional Land Surveyor				D	
Company Name Thomas*Amey*Shaw, Inc.				1	
Address 2900 Dune Drive, Ste. 8			Harris	5°F	leres, 17
City Avalon	State New Jersey	ZIP Code 08202	70		ED
Signature And In the	Date 08-13-2019	Telephone (609) 967-3999	Ext.		
Copy all pages of this Elevation Certificate and all atta	chments for (1) community o	fficial, (2) insurance	agent/com	ipany, ar	nd (3) building owner
Comments (including type of equipment and location	n, per C2(e), if applicable)				
A8(b) 9 Smart vents (model #1540-510) C2(e) Heater platform 71 square feet Attached Storage Elevation = 8.05					

\_\_\_\_\_\_

ELEVATION CERTIFICATE				Expiration Date: November 30, 2018
IMPORTANT: In these spaces, copy	the corresponding inform	ation from Sec	ction A.	FOR INSURANCE COMPANY USE
Building Street Address (including Ap 10205 First Avenue	ot., Unit, Suite, and/or Bldg. N	o.) or P.O. Rou	ite and Box No.	Policy Number:
City	State	ZIP	Code	Company NAIC Number
Stone Harbor	New Jersey	0824	47	
SECTION E	<ul> <li>BUILDING ELEVATION FOR ZONE AO AND</li> </ul>			REQUIRED)
For Zones AO and A (without BFE), complete Sections A, B,and C. For Ite enter meters.	complete Items E1–E5. If the ems E1–E4, use natural grade	Certificate is int e, if available. 0	tended to support a Check the measure	a LOMA or LOMR-F request, ement used. In Puerto Rico only,
E1. Provide elevation information for the highest adjacent grade (HAG a) Top of bottom floor (including crawlspace, or enclosure) is	i) and the lowest adjacent gra	appropriate box ide (LAG).	es to show whethe	
b) Top of bottom floor (including	basement,	· <u>-</u>		
crawlspace, or enclosure) is	<del></del>		feet mete	rs above or below the LAG.
E2. For Building Diagrams 6–9 with p the next higher floor (elevation C	permanent flood openings pro 2.b in	vided in Sectio		
the diagrams) of the building is			feet mete	rs above or below the HAG.
E3. Attached garage (top of slab) is		<u> </u>	☐ feet ☐ meter	s above or below the HAG.
E4. Top of platform of machinery and servicing the building is	l/or equipment		feet meter	s above or below the HAG.
E5. Zone AO only: If no flood depth n floodplain management ordinance				cordance with the community's certify this information in Section G.
SECTION F - I	PROPERTY OWNER (OR O)	WNER'S REPR	RESENTATIVE) CE	RTIFICATION
The property owner or owner's author community-issued BFE) or Zone AO r	ized representative who comp nust sign here. The statemen	oletes Sections ts in Sections A	A, B, and E for Zo A, B, and E are cor	ne A (without a FEMA-issued or rect to the best of my knowledge.
Property Owner or Owner's Authorized	d Representative's Name			
Address		City	St	até ZIP Code
Signature	12.	Date	Те	lephone
Comments	t.			

Check here if attachments.

IMPORTANT: In these spaces, copy the corre	sponding informa	tion from Section A.	-	OR INSUF	RANCE COMPANY USE
Building Street Address (including Apt., Unit, St 10205 First Avenue	uite, and/or Bldg. No	o.) or P.O. Route and Box	K No.	Policy Numb	per:
City Stone Harbor	State New Jersey	ZIP Code 08247	(	Company N	AIC Number
SECTIO	N G - COMMUNIT	Y INFORMATION (OPTI	ONAL)		
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	Certificate. Comple	er the community's flood te the applicable item(s)	olain mana and sign b	gement ord elow. Chec	linance can complete k the measurement
G1. The information in Section C was taken engineer, or architect who is authoriz data in the Comments area below.)	en from other docur ed by law to certify	mentation that has been s elevation information. (Ind	signed and dicate the	sealed by a source and	a licensed surveyor, date of the elevation
G2. A community official completed Secti or Zone AO.	ion E for a building I	ocated in Zone A (withou	t a FEMA-	issued or co	ommunity-issued BFE)
G3. The following information (Items G4-	· · ·		· · · · · · · · · · · · · · · · · · ·		
G4. Permit Number	G5. Date Permit I	1		te Certificat	e of ccupancy Issued
18-13101	12/	11/18		9/13	
G7. This permit has been issued for:	New Construction	□ Substantial Improver	ment		
G8. Elevation of as-built lowest floor (including of the building:	g basement) 	11.0	<b>X</b> feet [	meters	Datum Navo 1982
G9. BFE or (in Zone AO) depth of flooding at	the building site:	8.0	<b>X</b> feet [	_ meters	Datum <b>NAVO (98</b> 6
G10. Community's design flood elevation:	_	tl.0	<b>⊠</b> feet [	meters	Datum NWO RE
Local Official's Name  Michael Koochen	ibere	Title CONSTE	305116	N OF	FCIAL
Community Name  Borough of STOP		Telephone		.68K	<b>F</b>
Signature		Date 9/16			
Comments (including type of equipment and lo	cation, per C2(e), if				
				Cr	eck here if attachments.

# **ELEVATION CERTIFICATE**

See Instructions for Item A6.

Expiration Date: November 30, 2018

IMPORTANT: In these spaces, cop	FOR INSURANCE COMPANY USE		
Building Street Address (including A 10205 First Avenue	ot., Unit, 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 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.

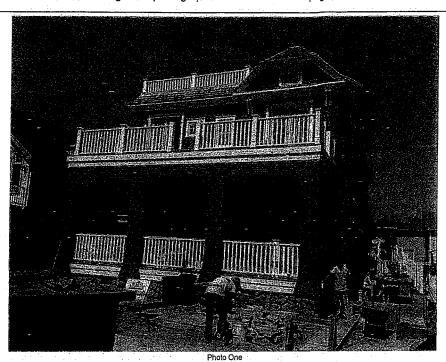


Photo One Caption front 08-13-2019

Clear Photo One

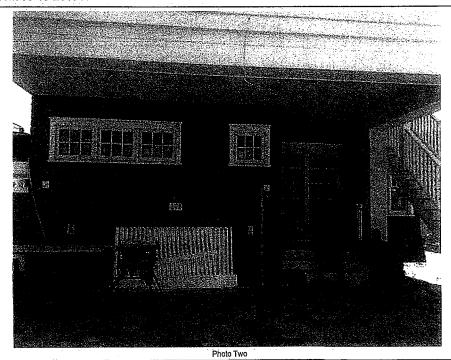


Photo Two Caption rear 08-13-2019

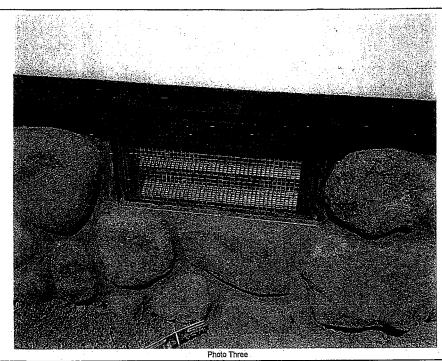


Photo Three Caption smart vent

Clear Photo Three

Photo Four

Photo Four

Photo Four Caption

Clear Photo Four



# **ICC-ES Report**

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

ESR-2074

Reissued 02/2017 This report is subject to renewal 02/2019.

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

# **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



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# **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 www.smartvent.com 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>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® 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<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® 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.



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<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

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 <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 <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 =  $m^2$