U.S. DEPARTMENT OF HOMELAND SECURITY ELEVATION CERTIFICATE FEDERAL EMERGENCY MANAGEMENT AGENCY OMB No. 1660-0008 National Flood Insurance Program Expiration Date: July 31, 2015 Important: Read the instructions on pages 1-9. FOR INSURANCE COMPANY USE SECTION A - PROPERTY INFORMATION A1. Building Owner's Name Thomas J. Welsh Jr. Policy Number: A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Company NAIC Number. 138 110th Street City Stone Harbor State NJ ZIP Code 08247 A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Block 109.02 Lots 41,43.01 & 44.01 A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential A5. Latitude/Longitude: Lat. N 39°02'38.17" Long. W 074°45'55.21" Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983 A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance. A7. Building Diagram Number 8 A8. For a building with a crawlspace or enclosure(s): A9. For a building with an attached garage: a) Square footage of attached garage a) Square footage of crawlspace or enclosure(s) sq ft 1313 sq ft N/A b) Number of permanent flood openings in the crawlspace Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade or enclosure(s) within 1.0 foot above adjacent grade N/A Total net area of flood openings in A9.b N/A sq in c) Total net area of flood openings in A8.b 1600 sq in d) Engineered flood openings? Engineered flood openings? Yes Yes ☐ No SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION B1. NFIP Community Name & Community Number B3. State B2. County Name Borough of Stone Harbor #345323 Cape May NJ B8. Flood B9. Base Flood Elevation(s) (Zone 84. Map/Panel Number B5. Suffix B6. FIRM Index Date **B7. FIRM Panel** AO, use base flood depth) 345323/0001 Effective/Revised Date Zone(s) 01/06/19 02/02/1983 10.0 7 15 92 B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. ☐ FIS Profile Community Determined Other/Source: Other/Source: B11. Indicate elevation datum used for BFE in Item B9: X NGVD 1929 ☐ NAVD 1988 B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Yes ⋈ No ☐ OPA Designation Date: ☐ CBRS SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) ☐ Construction Drawings* ☐ Building Under Construction* □ Finished Construction C1. Building elevations are based on: *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. MAL Benchmark Utilized: Local Vertical Datum: NGVD 29 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 Cometers ⊠ feet) (a) Top of bottom floor (including basement, crawlspace, or enclosure floor) 9.6 12.7 Ø feet_ meters b) Top of the next higher floor N/A ⊠ feet T meters c) Bottom of the lowest horizontal structural member (V Zones only) N/A meters d) Attached garage (top of slab) 12.1 ☐ meters 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 (LAG) 8.9 ☐ meters ☐ meters g) Highest adjacent (finished) grade next to building (HAG) 9.1 h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support 8.9 ☐ 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 Check here if comments are provided on back of form. Check here if attachments. licensed land surveyor? X Yes License Number 27514 Certifier's Name Steven C. Woodrow itle Land Surveyor Company Name Dante Guzzi Engineering Associates ZIP Code 08055 City Medford State NJ Address 418 Stokes Road Telephone 609-654-4440 Date 01/19/2015 Signature

IMPORTANT: In these space	s, copy the corresponding information fr	om Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 138 110th Street			Policy Number:
City Stone Harbor	State NJ	ZIP Code 08247	Company NAIC Number:
SECTION AND ADDRESS OF THE PROPERTY OF THE PRO	ON D - SURVEYOR, ENGINEER, OR ARC	HITECT CERTIFICATIO	DN (CONTINUED)
	ertificate for (1) community official, (2) insurance		
muc of the onlyed Mas file electific	in PRELIMINARY F.I.R.M. Zone X (no base floo meter. The elevations in section C2 are NGVD 2 are "SMART VENT" Model #1540-510.	d elevation) 0.2% chance of 9, to convert to NAVD 88 su	f flooding. The lowest equipment visible at the btract 1.3 feet.The nearest numbered flood
Signature Steve C (1)	ordia- De	te 01/19/2015	kada da anada na ga marana mpaminina na n
SECTION E - BUILDING E	LEVATION INFORMATION (SURVEY NOT	REQUIRED) FOR ZON	E AO AND ZONE A (WITHOUT BFE)
E1. Provide elevation information grade (HAG) and the lowest a a) Top of bottom floor (including b) Top of Building Diagrams 6–9 wire (elevation C2.b in the diagram E3. Attached garage (top of slab) E4. Top of platform of machinery at E5. Zone AO only: If no flood depordinance? Yes No	ng basement, crawlspace, or enclosure) is ng basement, crawlspace, or enclosure) is the permanent flood openings provided in Section is) of the building is feet feet feet feet feet feet feet fee	ed. In Puerto Rico only, enters to show whether the elevarian feet metal feet feet feet feet feet feet feet fee	er meters. tion is above or below the highest adjacent ters above or below the HAG. ters above or below the LAG. ges 8–9 of Instructions), the next higher floor elow the HAG. above or below the HAG. with the community's floodplain management
			Charle have if attaches a
	CECTION C. CORRELINITY INCO	DATATION (ODTIONAL)	Check here if attachmer
ne local official who is authorized by la	SECTION G – COMMUNITY INFO w or ordinance to administer the community's floor	dolain management ordinand	ce can complete Sections A. B. C (or E), and (
this Elevation Certificate. Complete the	ne applicable item(s) and sign below. Check the m	easurement used in Items G	8–G10. In Puerto Rico only, enter meters.
	was taken from other documentation that has by elevation information. (Indicate the source and	een signed and sealed by a date of the elevation data ir	licensed surveyor, engineer, or architect who the Comments area below.)
2. A community official complet	ted Section E for a building located in Zone A (wi	thout a FEMA-issued or con	
	ems G4–G10) is provided for community floodpla	in management purposes.	
64. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of	f Compliance/Occupancy Issued
'. This permit has been issued for:	New Construction Substantial	mprovement	/15
	including basement) of the building: 12.		Datum NGVD 1929
BFE or (in Zone AO) depth of floo		⊠_feet ☐ meters	Datum N600 1929
Community's design flood elevation	on: <u>11 . c</u>	feet meters	Datum NAVO 1988
ocal Official's Name	EL KOOCHEMBERE	itle CONCTE	CTION OFFICIAL
community Name		elephone 609-	
ignature \(\text{ign}\)		Pate 1/24/1	5
ments SUBTRACT	NO 1.3 FEET FROM	G-8 LEAV	ES
FIRST FI	EDGE AT 11.4 FEET AT	N AVD 88	☐ Check here if attachmen

Building Photographs

See Instructions for Item A6.

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. 138 110th Street

City Stone Harbor Stal

State NJ

ZIP Code 08247

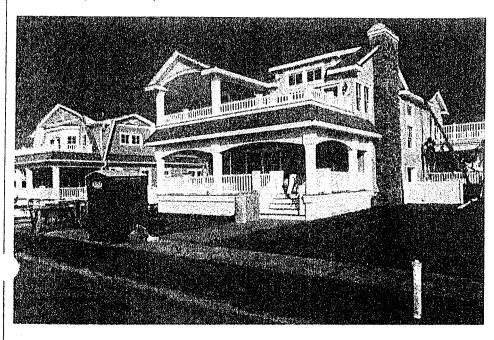
FOR INSURANCE COMPANY USE

Policy Number:

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.

Front View (01/16/2015)



Rear View (01/16/2015)



Building Photographs Continuation Page

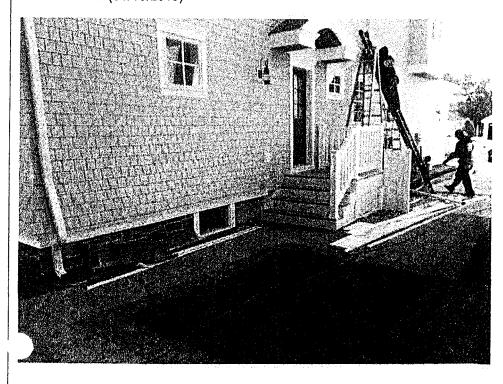
IMPORTANT: In these spaces, copy the correspondin	FOR INSURANCE COMPANY USE		
uilding Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 38 110th Street			Policy Number:
City Stone Harbor	State NJ	ZIP Code 08247	Company NAIC Number:

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.

Right Side View (01/16/2015)



Left Side View (01/16/2015)





ICC-ES Evaluation Report

ESR-2074

Reissued February 1, 2009

This report is subject to re-examination in two years.

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

A Subsidiary of the International Code Council®

DIVISION: 10—SPECIALTIES Section: 10230—Vents

REPORT HOLDER:

SMART VENT®, INC.
450 ANDBRO DRIVE, SUITE 2B
PITMAN, NEW JERSEY 08071
(856) 307-1468

www.smartvent.com
eval@smartvent.com

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: FLOODVENT™ MODEL #1540-520; FLOODVENT™ STACKING MODEL #1540-521; SMARTVENT™ MODEL #1540-510; SMARTVENT™ STACKING MODEL #1540-511; WOOD WALL FLOOD MODEL #1540-570; WOOD WALL FLOOD OVERHEAD DOOR MODEL #1540-524; SMARTVENT™ OVERHEAD DOOR MODEL #1540-514

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2006 International Building Code® (IBC)
- 2006 International Residential Code® (IRC)

Properties evaluated:

- Physical operation
- Water flow

2.0 USES

The Smart Vent® units are automatic foundation flood vents (AFFVs) employed to equalize hydrostatic pressure on nonfire-resistance-rated foundation walls, rolling-type overhead doors and building walls subject to rising or falling flood waters. Certain models also allow natural ventilation in accordance with Section 1203 of the IBC or Section 408.1 of the IRC.

3.0 DESCRIPTION

3.1 General:

When subjected to pressure from rising water, the Smart Vent® AFFVs disengage, 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 AFFV 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 plate to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel, and each opening provides 76 square inches (49 032 mm²) of net free area for flood mitigation in the open position. The SmartVENT™ Stacking Model #1540-511 and FloodVENT™ Stacking Model #1540-521 units each contain two vertically arranged openings per unit, providing 152 square inches (98 064 mm²) of net free area for flood mitigation in the open position.

3.2 Engineered Opening:

The AFFVs comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 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 AFFVs must be installed in accordance with Section 4.0.

3.3 Model Sizes:

The FloodVENT™ Model #1540-520, SmartVENT™ Model #1540-510, FloodVENT™ Overhead Door Model #1540-524, and SmartVENT™ Overhead Door Model #1540-514 units measure 15³/₄ inches wide by 7³/₄ inches high (400 by 196.9 mm). The Wood Wall Flood Model #1540-570 and Wood Wall Flood Overhead Door Model #1540-574 units measure 14 inches wide by 8³/₄ inches high (355.6 by 222.25 mm). The SmartVENT™ Stacking Model #1540-511 and FloodVENT™ Stacking Model #1540-521 units measure 16 inches wide by 16 inches high (406.4 by 406.4 mm).

3.4 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 AFFVs recognized in this report do not offer natural ventilation.

4.0 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. The mounting straps allow mounting in wood, masonry and concrete walls up to 12 inches (305 mm) thick. In order to

comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, the Smart Vent® AFFVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area
- With a minimum of one AFFV 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 AFFV for every 400 square feet (37.2 m²) of enclosed area.
- Below the base flood elevation
- With the bottom of the AFFV located a maximum of 12 inches (305.4 mm) above grade.

5.0 CONDITIONS OF USE

The Smart Vent® AFFVs 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® AFFVs 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[®] AFFVs 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 Automatic Foundation Flood Vents (AC364), dated October 2007.

7.0 IDENTIFICATION

The Smart VENT[®],models recognized in this report must be identified by a label bearing the manufacturer's name (Smart Vent, Inc.), the model number, and the evaluation report number (ESR-2074).