

# ELEVATION CERTIFICATE

Important: Read the instructions on pages 1-9.

SECTION A - PROPERTY INFORMATION		For Insurance Company Use:
A1. Building Owner's Name <b>GARDNER, KELLY</b> JOB #10569	Policy Number	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <b>217 100<sup>TH</sup> STREET                      FRONT BUILDING</b>	Company NAIC Number	
City <b>STONE HARBOR</b> State <b>NJ</b> ZIP Code <b>08247</b>		
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) <b>LOTS: 84.02, 86      BLOCK: 100.03</b>		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <b>RESIDENTIAL</b>		
A5. Latitude/Longitude: Lat. <b>39° 3' 3"</b> Long. <b>-74° 45' 40"</b>		Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> 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 <b>8</b>		
A8. For a building with a crawlspace or enclosure(s):		A9. For a building with an attached garage:
a) Square footage of crawlspace or enclosure(s) <b>739</b> sq ft	a) Square footage of attached garage <b>N/A</b> sq ft	b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <b>N/A</b>
b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <b>7</b>	c) Total net area of flood openings in A9.b <b>N/A</b> sq in	d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No
c) Total net area of flood openings in A8.b <b>sect D</b> sq in		
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

## SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number <b>BOROUGH OF STONE HARBOR 345323</b>		B2. County Name <b>CAPE MAY</b>		B3. State <b>NEW JERSEY</b>	
B4. Map/Panel Number <b>345323-0001</b>	B5. Suffix <b>C</b>	B6. FIRM Index Date <b>7/15/92</b>	B7. FIRM Panel Effective/Revised Date <b>7/15/92</b>	B8. Flood Zone(s) <b>A7</b>	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) <b>10'</b>
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other (Describe) _____					
B11. Indicate elevation datum used for BFE in Item B9: <input checked="" type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other (Describe) _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

## 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. Use the same datum as the BFE.  
Benchmark Utilized **CMCMUA DISK SH-43 Vertical Datum 7.34'**  
Conversion/Comments **N/A**

Check the measurement used.

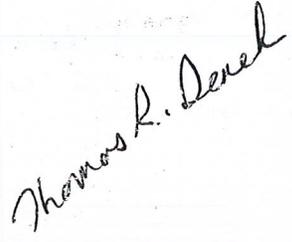
a) Top of bottom floor (including basement, crawlspace, or enclosure floor) <b>8.8</b>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
b) Top of the next higher floor <b>11.6</b>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
c) Bottom of the lowest horizontal structural member (V Zones only) <b>N/A</b>	<input type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
d) Attached garage (top of slab) <b>N/A</b>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) <b>11.3</b>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
f) Lowest adjacent (finished) grade next to building (LAG) <b>8.4</b>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
g) Highest adjacent (finished) grade next to building (HAG) <b>8.7</b>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support <b>N/A</b>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)

## 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.

Check here if comments are provided on back of form.      Were latitude and longitude in Section A provided by a licensed land surveyor?       Yes       No

Certifier's Name <b>THOMAS R DENEKA</b>		License Number <b>35828</b>	
Title <b>NJPLS</b>	Company Name <b>STONE HARBOR SURVEYORS</b>		
Address <b>PO BOX 511</b>	City <b>STONE HARBOR</b>	State <b>NJ</b>	ZIP Code <b>08247</b>
Signature <i>Thomas R. Deneke</i>	Date <b>11/3/11</b>	Telephone <b>609-368-7451</b>	



<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>	For Insurance Company Use
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 217 100 <sup>TH</sup> STREET FRONT BUILDING	Policy Number
City STONE HARBOR State NJ ZIP Code 08247	Company NAIC Number

**SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)**

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.  
 Comments BUILDING HAS 7 SMART VENTS COVERING 200 SQUARE FEET EACH, MODEL # 1540-510. C-2-E IS EXTERIOR HVAC.

Signature Thomas L. Senek Date 11/3/11  Check here if attachments

**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 8-9 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 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's or Owner's Authorized Representative's Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ ZIP Code \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_ Telephone \_\_\_\_\_

Comments \_\_\_\_\_

Check here if attachments

**SECTION G - COMMUNITY INFORMATION (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 and G9.

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 building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3.  The following information (Items G4-G9) is provided for community floodplain management purposes.

G4. Permit Number <u>11-9779</u>	G5. Date Permit Issued <u>4/1/11</u>	G6. Date Certificate Of Compliance/Occupancy Issued <u>11/14/11</u>
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G7. This permit has been issued for:  New Construction  Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: 11.6  feet  meters (PR) Datum NGVD 29

G9. BFE or (in Zone AO) depth of flooding at the building site: 10.0  feet  meters (PR) Datum NGVD 29

G10. Community's design flood elevation: 10.0  feet  meters (PR) Datum NGVD 29

Local Official's Name MICHAEL KOCHENBERG Title CONSTRUCTION

Community Name STONE HARBOR Telephone 609-368-6814

Signature [Signature] Date 11/14/11

Comments \_\_\_\_\_

Check here if attachments

# Building Photographs

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 217 100 <sup>TH</sup> STREET FRONT BUILDING	For Insurance Company Use: 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."



**FRONT RIGHT SIDE VIEW 11/3/11**



**REAR LEFT SIDE VIEW 11/3/11**

**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) 307-1488  
[www.smartvent.com](http://www.smartvent.com)  
[eval@smartvent.com](mailto: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 #1540-574;  
FLOODVENT™ 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 mm<sup>2</sup>) 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 mm<sup>2</sup>) 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 15<sup>3</sup>/<sub>4</sub> inches wide by 7<sup>3</sup>/<sub>4</sub> 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 8<sup>3</sup>/<sub>4</sub> 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 mm<sup>2</sup>) 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 mm<sup>2</sup>) 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

# Engineered Flood Openings Certificate

## To satisfy requirements of the National Flood Insurance Program

This certification must be submitted to, and kept on file by, the local jurisdiction's permit authority. A copy should be retained by the owner to demonstrate compliance in order to receive the best flood insurance rating.

The Smart VENT® and Flood VENT™ Foundation Flood Vent is certified as meeting the flood opening requirements for engineered openings as set forth in the Federal Emergency Management Agency's National Flood Insurance Program regulations (44 CFR 60.3(c)(5)) and ASCE 24-98, provided it is installed according to the those references, as summarized below. Flood openings are required in enclosures below elevated buildings, attached and detached garages, and accessory structures that meet the required limitations. For a copy of the report documenting this certification dated June 21, 2002, and a copy of the National Evaluation Service report NER 624, contact Smart VENT, Inc., at 877/441-8368 or visit:

[www.smartvent.com](http://www.smartvent.com)

I do hereby certify that the Smart VENT® Louvered Foundation Flood Vent and the FloodVENT™ Insulated Foundation Flood Vent opening (s) is designed for installation in buildings, will allow for the automatic equalizing of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater during floods up to and including the base (100-year) flood. One Smart VENT® or one FloodVENT™ for every 200 Sq.Ft. of enclosed area will provide sufficient hydrostatic pressure equalization during a flood provided the installation limitations and instructions are followed as listed below. To Calculate the required number of Smart VENTS® or FloodVENTS™ divide the Square Feet of enclosed area by 200.

**Example: A 2000 Sq.Ft. enclosed area requires 10 vents.  $2000 \text{ Sq.Ft} / 200 = 10 \text{ Vents}$**

Signature   
Title Professional Engineer  
Type of License Professional Engineering  
License Number NJ PE GE26637



\*Project Name \_\_\_\_\_  
\*Project Address \_\_\_\_\_  
\*Date Submitted \_\_\_\_\_  
\* Required Fields\*

Professional Seal

### Installation Limitations and Instructions

1. The Smart VENT® or FloodVENT™ unit provides sufficient automatic equalization of hydrostatic pressure on walls and foundations of buildings located in flood hazard areas where the rate of rise is expected to be less than or approximately 5 feet per hour.
2. Enclosed areas below otherwise elevated buildings, non-elevated attached and detached garages, and certain non-elevated accessory structures located in flood hazard areas are to be used solely for parking of vehicles, building access, or storage.
3. Each enclosed area shall have at least two flood openings, installed on different sides of the enclosed area.
4. The bottom of the flood openings shall be no more than one foot above the adjacent finished ground level.
5. Installation must be in accordance with manufacturer's instructions.

"REFERENCE ONLY" From FEMA TB 1-93

### Guidance for Engineered Openings Openings in Foundation Walls

#### National Flood Insurance Program (NFIP) Technical Bulletin TB 1-93

"In situations where it is not feasible or desirable to meet the openings criteria stated previously, a design professional (registered engineer or architect) may design and certify openings. This section provides guidance for such engineered designs. For openings not meeting all four requirements for non-engineered openings listed on page 2 and 3 of TB 1-93, certification by a registered professional engineer or architect is required. Such certification must be submitted to, and kept on file by, the community. These certifications must assure community officials that the openings are designed in accordance with accepted standards of practice. A certification may be affixed to the design drawings or submitted separately. It must include appropriate certification language, and the name, title, address, signature, type of license, license number, and professional seal of the certifier." (TB 1-93 is available through Smart VENT® or online at [www.fema.gov](http://www.fema.gov))

Form: SMRT100 Rev.A July 2002

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