

ELEVATION CERTIFICATE

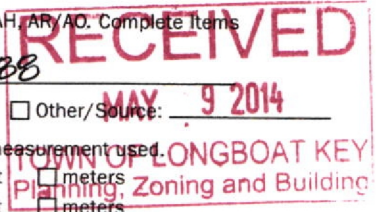
IMPORTANT: Follow the instructions on pages 1-9.

OMB No. 1660-0008
 Expiration Date: July 31, 2015

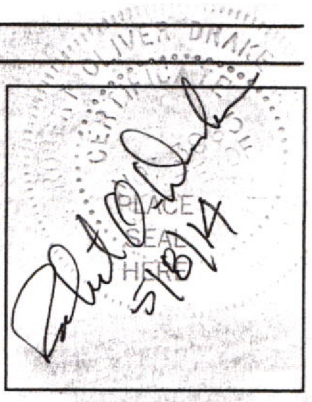
SECTION A - PROPERTY INFORMATION		FOR INSURANCE COMPANY USE
A1. Building Owner's Name Pamela & Mark Ketchum MAIN HOUSE		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 5931 Gulf of Mexico Drive File 12110524		Company NAIC Number:
City Longboat Key	State FL	ZIP Code 34228
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Property IC # 7899400001		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential		
A5. Latitude/Longitude: Lat. 17 419685 N Long. 82.6613 W Horizontal Datum: <input checked="" type="checkbox"/> NAD 1927 <input 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 6		
A8. For a building with a crawlspace or enclosure(s):		A9. For a building with an attached garage: SEE COMMENT
a) Square footage of crawlspace or enclosure(s) 2473 sq ft		a) Square footage of attached garage _____ sq ft
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 18		b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____
c) Total net area of flood openings in A8.b 3600 sq in		c) Total net area of flood openings in A9.b _____ sq in
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Town of Longboat Key			B2. County Name Manatee		B3. State FL
B4. Map/Panel Number 12081C 0291	B5. Suffix E	B6. FIRM Index Date 03/17/2014	B7. FIRM Panel Effective/ Revised Date 03/17/2014	B8. Flood Zone(s) AE & VE	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 10-11 & 12
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/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
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: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input checked="" type="checkbox"/> 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: FREP BM B-12 ELEV = 7.54 Vertical Datum: NAVD 1988	
Indicate elevation datum used for the elevations in items a) through h) below. <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: MAY 9 2014 Datum used for building elevations must be the same as that used for the BFE.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor) 7.1	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor 18.9	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only) N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab) 7.1	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) 13.5	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG) 6.4	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG) 6.9	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> 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.			
<input checked="" type="checkbox"/> Check here if comments are provided on back of form.		Were latitude and longitude in Section A provided by a licensed land surveyor? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input checked="" type="checkbox"/> Check here if attachments.			
Certifier's Name Robert O. Drake		License Number 5965	
Title Project Manager		Company Name Red Stake Surveyors, Inc.	
Address 7123 Proctor Road		City Sarasota	State FL
Signature <i>Robert O. Drake</i>		Date 05/08/2014	ZIP Code 34241
		Telephone (941) 923-9997	



ELEVATION CERTIFICATE, page 2

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. 5931 Gulf of Mexico Drive File 12110524			Policy Number:	
City Longboat Key	State FL	ZIP Code 34228	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 Section B- Flood insurance rate map (FIRM) information to be verified at local F.E.M.A. control office

BB: BUILDING ENTIRELY IN ZONE AE (EL. 10') A9: GARAGE UNDER HOUSE AND PART OF ENCLOSURE; C2E: AIR CONDITIONER

Signature *Robert D. D.* Date 05/08/2014

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 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–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 building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy Issued
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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: _____, _____ feet meters Datum _____
- G9. BFE or (in Zone AO) depth of flooding at the building site: _____, _____ feet meters Datum _____
- G10. Community's design flood elevation: _____, _____ feet meters Datum _____

Local Official's Name _____ Title _____

Community Name _____ Telephone _____

Signature _____ Date _____

Comments _____

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MAY 9 2014
TOWN OF LONGBOAT KEY
Planning, Zoning and Building

Check here if attachments.

Building Photographs

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 5931 Gulf of Mexico Dr. Main House			For Insurance Company Use: Policy Number
City Longboat Key	State FL	ZIP Code 34228	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two 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." If submitting more photographs than will fit on this page, use the Continuation Page, following.



Front View



Rear View

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MAY 9 2014
TOWN OF LONGBOAT KEY
Planning, Zoning and Building

V- ZONE DESIGN CERTIFICATE

Name Ketchum Policy Number (Insurance Co. Use) _____
Building Address or Other Description 5931 Gulf of Mexico Drive
Permit No. _____ City Longboat Key State FL Zip Code 34228

SECTION I: Flood Insurance Rate Map (FIRM) Information

Community No. 126126 Panel No. 0291 Suffix E FIRM Date 03/17/2014 FIRM Zone(s) VE

SECTION II: Elevation Information Used for Design

[NOTE: This section documents elevations used in the design – it does not substitute for an as-built Elevation Certificate.]

1. Datum..... NGVD NAVD Other
2. Elevation of the Bottom of Lowest Horizontal Structural Member 18.0 feet above datum
3. Base Flood Elevation (BFE)..... 12.0 feet above datum
4. Elevation of Lowest Adjacent Grade 6.4 feet above datum
5. Approximate Depth of Anticipated Scour/Erosion used for Foundation Design..... 1.0 feet above datum
6. Embedment Depth of Pilings or Foundation Below Lowest Adjacent Grade..... 25 feet ~~above datum~~

SECTION III: V Zone Design Certification Statement

[NOTE. This section must be certified by a Florida licensed engineer or architect.]

I certify: (1) that I have developed or reviewed the structural design, plans, and specifications for construction and (2) that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the following provisions:

- The bottom of the lowest horizontal structural member of the lowest floor (with the exception of mat or raft foundations, piling, pile caps, columns, grade beams and bracing) is elevated to or above the BFE in accordance with the requirements of the *Florida Building Code* and local floodplain management regulations; and
- The pile and column foundation and building or structure to be attached thereto is designed in accordance with the *Florida Building Code* to be anchored to resist flotation, collapse, and lateral movement due to the effects of the wind and flood loads acting simultaneously on all building components, and other load requirements of the *Florida Building Code*. The potential for scour and erosion at the foundation has been anticipated for conditions associated with the base flood, including wave action.

SECTION IV: Breakaway Wall Design Certification Statement

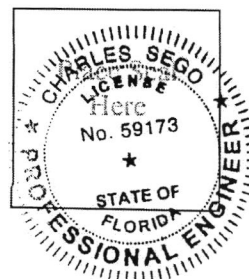
[NOTE. This section must also be certified by a Florida licensed engineer or architect when breakaway walls exceed a design safe loading resistance of 20 pounds per square foot. This requirement does not apply to open wood/plastic lattice/slats/louvers or insect screening.]

I certify: (1) that I have developed or reviewed the structural design, plans, and specifications for construction and (2) that the design and methods of construction to be used for the breakaway walls are in accordance with the *Florida Building Code, Building (ASCE 24)* or *Florida Building Code, Residential*, as applicable, and accepted standards of practice.

SECTION V: Certification and Seal

This certification is to be signed and sealed by a Florida licensed professional engineer or architect authorized by law to certify structural designs. I certify the V Zone Design Certification Statement in Section III and the Breakaway Wall Design Certification Statement in Section IV (if applicable).

Certifier's Name Charles Sego License Number P.E. 59173
Title Structural Engineer Company Name SEGO & SEGO, LLC
Address P.O. Box 2106 City Anna Maria State FL ZIP 34216
Signature [Handwritten Signature] Date 26.09.2014 Telephone 941-778-8204



ICC-ES Evaluation Report**ESR-2074***

Reissued December 2012

This report is subject to renewal February 1, 2015.

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) 441-8368www.smartvent.com
info@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:**

- 2009 and 2006 *International Building Code*® (IBC)
- 2009 and 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. The Smart Vent® units are intended for use where flood hazard areas have been established in accordance with IBC Section 1612.3 or IRC Section R3222.1. 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. 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 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

*Revised June 2014

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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 2013 (editorially revised May 2014).

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).

ICC-ES Evaluation Report**ESR-2074 FBC Supplement**

Issued July 2013

This report is subject to renewal February 1, 2015.www.icc-es.org | (800) 423-6587 | (562) 699-0543

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REPORT HOLDER:**SMARTVENT PRODUCTS, INC.**

430 ANDBRO DRIVE, UNIT 1

PITMAN, NEW JERSEY 08071

(877) 441-8368

www.smartvent.cominfo@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 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, recognized in ICC-ES master report ESR-2074, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2010 Florida Building Code—Building (FBC)
- 2010 Florida Building Code—Residential (FRC)

2.0 CONCLUSIONS

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the FBC and the FRC, provided the design and installation are in accordance with the *International Building Code*® provisions noted in the master report.

Use of the Smart Vent® Automatic Foundation Flood Vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the FBC and the FRC for structures not subject to FBC Section 2326.3.1 or FRC Section 4409.13.3.1, as applicable.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the master report reissued December 1, 2012, revised June 2014.