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

1 2

OMB No. 1660-0008 Expiration Date: November 30, 2018

RECEIVED

JUN 27 2019

# **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 INFORMATION                                 |                |                              |            |                                   |                      |                                  | RANCE COMPONEYSER BOR                |  |
|--|----------------|------------------------------|------------|-----------------------------------|----------------------|----------------------------------|--------------------------------------|--|
| A1. Building Owner's Name  Policy Number STRUCTION OF  Morrissey |                |                              |            |                                   |                      |                                  |                                      |  |
| A2. Building Street<br>Box No.<br>551 Berkley Road               | t Address (inc | cluding Apt., Unit, Suit     | e, and/o   | r Bldg. No.) o                    | r P.O. Route and     | Company N                        | IAIC Number:                         |  |
| City<br>Borough of Sto   | ne Harbor      |                              |            | State<br>New Jer                  | sey                  | ZIP Code<br>08247                |                                      |  |
| A3. Property Desc<br>Lots 439, 440 & 44                          | •              | nd Block Numbers, Ta<br>0.01 | x Parcel   | Number, Le                        | gal Description, e   | tc.)                             |                                      |  |
| A4. Building Use (   | e.g., Residen  | tial, Non-Residential,       | Addition   | , Accessory,                      | etc.) Resident       | ial                              |                                      |  |
| A5. Latitude/Longit  | tude: Lat. 39  | 9°03'07.8"                   | Long7      | '4°46'04.4"                       | Horizont             | al Datum: NAD                    | 1927 🔀 NAD 1983                      |  |
| A6. Attach at least  | 2 photograp    | hs of the building if the    | e Certific | ate is being u                    | used to obtain floo  | od insurance.                    |                                      |  |
| A7. Building Diagra  | m Number       | 6                            |            |                                   |                      |                                  |                                      |  |
| A8. For a building   | with a crawls  | pace or enclosure(s):        |            |                                   |                      |                                  |                                      |  |
| a) Square foot   | tage of crawl  | space or enclosure(s)        |            |                                   | 2123.00 sq ft        |                                  |                                      |  |
| b) Number of p   | ermanent flo   | ood openings in the cr       | awlspace   | e or enclosur                     | e(s) within 1.0 foo  | t above adjacent gra             | ade 12                               |  |
| c) Total net are   | ea of flood op | penings in A8.b              | 2          | 2400.00 sq ir                     | 1                    |                                  |                                      |  |
| d) Engineered  | flood openin   | gs? 🗵 Yes 🗌 N                | lo         |                                   |                      |                                  |                                      |  |
| A9. For a building w   | vith an attach | ed garage:                   |            |                                   |                      |                                  |                                      |  |
| a) Square foot   | age of attach  | ed garage                    |            | sq f                              |                      |                                  |                                      |  |
| b) Number of p   | ermanent flo   | ood openings in the at       | tached g   | arage within                      | 1.0 foot above ac    | jacent grade                     | ·····                                |  |
| c) Total net are   | ea of flood op | penings in A9.b              |            | sq                                | in                   |                                  |                                      |  |
| d) Engineered  | flood openin   | gs? 🗌 Yes 🔲 N                | lo         |                                   |                      |                                  |                                      |  |
|  |                |                              |            |                                   |                      |                                  |                                      |  |
|  | ····           | CTION B - FLOOD              | NSURA      | <del></del>                       |                      | FORMATION                        | DO Chil                              |  |
| B1. NFIP Commun<br>Borough of Stone F                            | •              | =                            |            | B2. County<br>Cape May            |                      |                                  | B3. State<br>New Jersey              |  |
| B4. Map/Panel<br>Number  | B5. Suffix     | B6. FIRM Index<br>Date       | Effe       | RM Panel<br>ective/<br>vised Date | B8. Flood<br>Zone(s) | B9. Base Flood E<br>(Zone AO, us | Elevation(s)<br>le Base Flood Depth) |  |
| 34009C0242   | F              | 10-05-2017                   | 10-05-2    |                                   | AE                   | 9                                |                                      |  |
| B10. Indicate the s  | ource of the   | Base Flood Elevation         | (BFE) d    | ata or base fl                    | ood depth entere     | d in Item B9:                    |                                      |  |
|  |                | Community Deter              |            |                                   |                      |                                  |                                      |  |
| B11. Indicate eleva  | ation datum u  | used for BFE in Item B       | 9: 🗌 N     | GVD 1929                          | ⊠ NAVD 1988          | Other/Source:                    |                                      |  |
| B12 Is the huilding  | n located in a | Coastal Barrier Resc         | urces S    | vstem (CBRS                       | s) area or Otherw    | ise Protected Area (             | OPA)? ☐ Yes ⊠ No                     |  |
| Designation [  |                |                              | CBRS       | OPA                               | ,                    |                                  |                                      |  |
| Designation t  | Jaic.          |                              | JENU       |                                   |                      |                                  |                                      |  |
|  |                |                              |            |                                   |                      |                                  |                                      |  |

# **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2018

| 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. 551 Berkley Road   | Policy Number:   |  |  |  |  |  |  |
| City State ZIP Code  | Company NAIC Number  |  |  |  |  |  |  |
| Borough of Stone Harbor New Jersey 08247   |  |  |  |  |  |  |  |
| SECTION C - BUILDING ELEVATION INFORMATION (SURVE  | Y REQUIRED)  |  |  |  |  |  |  |
| C1. Building elevations are based on: Construction Drawings* Building Under Cor *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, Complete Items C2.a–h below according to the building diagram specified in Item A7. In P  Benchmark Utilized: NJTCM-Ref 0333 Vertical Datum: N.A.V.D 1988   | Puerto Rico only, enter meters.  |  |  |  |  |  |  |
| Indicate elevation datum used for the elevations in items a) through h) below.  NGVD 1929 X NAVD 1988 D 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)  | 6.00   feet   meters   |  |  |  |  |  |  |
| b) Top of the next higher floor  | 14.10 × feet meters  |  |  |  |  |  |  |
| c) Bottom of the lowest horizontal structural member (V Zones only)  | N/A feet meters  |  |  |  |  |  |  |
| d) Attached garage (top of slab)   | N/A feet meters  |  |  |  |  |  |  |
| e) Lowest elevation of machinery or equipment servicing the building     (Describe type of equipment and location in Comments)   | 14.50 × feet meters  |  |  |  |  |  |  |
| f) Lowest adjacent (finished) grade next to building (LAG)   | 5.30 × feet meters   |  |  |  |  |  |  |
| g) Highest adjacent (finished) grade next to building (HAG)  | 6.90 × feet meters   |  |  |  |  |  |  |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support   | 5.60 X feet meters   |  |  |  |  |  |  |
| SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CER   | TIFICATION   |  |  |  |  |  |  |
| 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? X Yes   | No Check here if attachments.  |  |  |  |  |  |  |
| Certifier's Name License Number Stephen C. Martinelli 30089  |  |  |  |  |  |  |  |
| Title  Professional Land Supreyor  | The distribution of the state o |  |  |  |  |  |  |
| Professional Land Surveyor  Company Name   | Place  |  |  |  |  |  |  |
| The Martinelli Group LLC   | Seal   |  |  |  |  |  |  |
| Address 1217 S.Shore Road Suite 106  | Here   |  |  |  |  |  |  |
| CityStateZIP CodeOcean ViewNew Jersey08230   |  |  |  |  |  |  |  |
| Signature Date Telephone (609) 390-96  |  |  |  |  |  |  |  |
| Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insura  | nce agent/company, and (3) building owner.   |  |  |  |  |  |  |
| Comments (including type of equipment and location, per C2(e), if applicable)  There are (12)Smart Vents Model #1540-520 in the 2123sq foot enclosure shown in section A8 a is constructed with break away walls as per Construction drawings by James E. Chadwick P.E. & P.A., LLC dated 08/15/2018.  There an 288sq foot storage enclosure not shown in section A8 a, with break away walls as per Construction drawings by James E. Chadwick P.E. & P.A., LLC dated 08/15/2018 and (2) Smart Vents Model #1540-520 and (1) 36"x 36" with a floor elevation of 6.0. (See Attached)  Lowest machinery is the A/C units located on a raised platform outside the Building.  CK by:SCM(fjs) |  |  |  |  |  |  |  |

# **ELEVATION CERTIFICATE**

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| mir ON IAM I. III these spaces, copy th   | e corresponding information  | n from Section A.   | FOR INSURANCE COMPANY USE   |
|---|--|---|---|
| Building Street Address (including Apt., 551 Berkley Road   | Unit, Suite, and/or Bldg. No.) o                                     | r P.O. Route and Box No.                                      | Policy Number:  |
| City  | State  | ZIP Code  | Company NAIC Number   |
| Borough of Stone Harbor   | New Jersey   | 08247   |   |
| SECTION E - I   | BUILDING ELEVATION INFO<br>FOR ZONE AO AND ZOI                       | ORMATION (SURVEY NO<br>NE A (WITHOUT BFE)                     | T REQUIRED)   |
| For Zones AO and A (without BFE), comcomplete Sections A, B,and C. For Items enter meters.                      | pplete Items E1–E5. If the Certi<br>s E1–E4, use natural grade, if a | ificate is intended to support<br>available. Check the measur | a LOMA or LOMR-F request, ement used. In Puerto Rico only,            |
| Provide elevation information for the the highest adjacent grade (HAG) a     Top of bottom floor (including ba) | nd the lowest adjacent grade (                                       |   | er the elevation is above or below                                    |
| crawlspace, or enclosure) is  | <u></u>  | feet  mete  | ers above or below the HAG.   |
| <ul> <li>b) Top of bottom floor (including ba<br/>crawlspace, or enclosure) is</li> </ul>                       | sement,  | feet  mete  | ers above or below the LAG.   |
| E2. For Building Diagrams 6–9 with peri   |  | ed in Section A Items 8 and/o                                 | or 9 (see pages 1–2 of Instructions),                                 |
| the next higher floor (elevation C2.b<br>the diagrams) of the building is                                       |  | feet mete   | ers above or below the HAG.   |
| E3. Attached garage (top of slab) is  |  | feet  mete  | ers  above or  below the HAG.   |
| E4. Top of platform of machinery and/or servicing the building is   | equipment  | feet  mete  | ers  above or  below the HAG.   |
| E5. Zone AO only: If no flood depth num floodplain management ordinance?  | nber is available, is the top of th                                  | ne bottom floor elevated in a own. The local official must    | ccordance with the community's certify this information in Section G. |
| SECTION F PR  | OPERTY OWNER (OR OWNE  | ER'S REPRESENTATIVE) C  | ERTIFICATION  |
| The property owner or owner's authorize community-issued BFE) or Zone AO must                                   | d representative who complete<br>st sign here. The statements in     | es Sections A, B, and E for Z<br>Sections A, B, and E are co  | one A (without a FEMA-issued or<br>rrect to the best of my knowledge. |
| Property Owner or Owner's Authorized R  | Representative's Name  |   |   |
| Address   |  | City S  | itate ZIP Code  |
| Signature   |  | Date T  | elephone  |
|   |  |   |   |
| Comments  |  |   | -   |
| Comments  |  |   | -   |
| Comments  |  |   | -   |
| Comments  |  |   |   |
| Comments  |  |   |   |

# **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2018

| IMPORTANT: In these spaces, copy the corre   | esponding information from       | n Section A.  | FOR INSURANCE COMPANY USE                                       |
|--|----------------------------------|---|---|
| Building Street Address (including Apt., Unit, St 551 Berkley Road   | uite, and/or Bldg. No.) or P.C   | Route and Box No.                                     | Policy Number:  |
| City   | State                            | ZIP Code  | Company NAIC Number   |
| Borough of Stone Harbor  | New Jersey                       | 08247   |   |
|  | ON G - COMMUNITY INFOR           |   |   |
| 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. Complete the ap     | mmunity's floodplain ma<br>pplicable item(s) and sigr | nagement ordinance can complete in below. Check the measurement |
| G1. The information in Section C was takengineer, or architect who is authorized taken in the Comments area below.)                              | ed by law to certify elevation   | information. (Indicate th                             | e source and date of the elevation                              |
| G2. A community official completed Section Zone AO.  |                                  |   |   |
| G3. The following information (Items G4–   | G10) is provided for commu       |   |   |
| G4. Permit Number  | G5. Date Permit Issued           | G6. [   | Date Certificate of Compliance/Occupancy Issued                 |
| 18-13000   | 10/5/18                          |   | 7/25/19   |
| G7. This permit has been issued for:   | New Construction  Subs           | stantial Improvement                                  |   |
| G8. Elevation of as-built lowest floor (including of the building:   | basement)                        |   | meters Datum Nation 19  |
| G9. BFE or (in Zone AO) depth of flooding at t   |                                  |   | meters Datum NAVD 1988  |
| G10. Community's design flood elevation:   | 11.0                             | <b>X</b> feet   | meters Datum NAP 1961   |
| Local Official's Name  NCHAEL KOOCH  | Title                            | CONSTRUC  | TION OFFICIAL   |
| Community Name  BUROUGH OF STONE   | Tel                              | bog, 3 6  |   |
| Signature  | Dat                              |   | 2   |
| Comments (including type of equipment and loc  | cation, per C2(e), if applicable | 7.1   |   |
| Comments (moleculary type of adalpment and let   | (a), in opposite                 | -,  |   |
|  |                                  |   |   |
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|  |                                  |   |   |
|  |                                  |   | l   |
|  |                                  |   |   |
|  |                                  |   | Check here if attachments.                                      |

## **BUILDING PHOTOGRAPHS**

**ELEVATION CERTIFICATE** 

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2018

| IMPORTANT: In these spaces, copy th                       | FOR INSURANCE COMPANY USE |          |                     |  |  |  |  |  |  |
|---|---------------------------|----------|---------------------|--|--|--|--|--|--|
| Building Street Address (including Apt., 551 Berkley Road | Policy Number:            |          |                     |  |  |  |  |  |  |
| City  | State                     | ZIP Code | Company NAIC Number |  |  |  |  |  |  |
| Borough of 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.

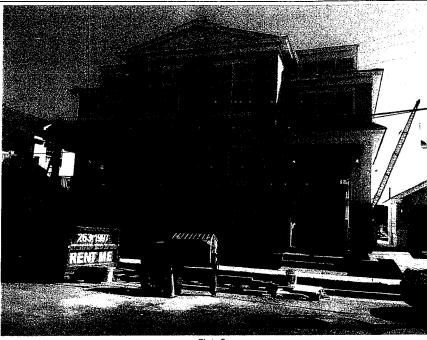


Photo One

Photo One Caption Front View 6-21-19



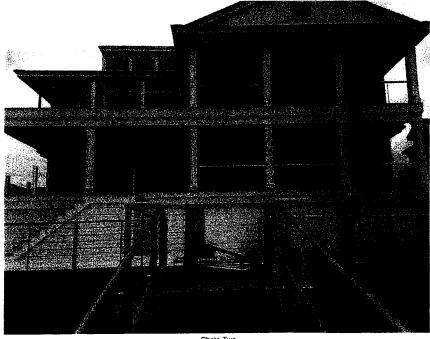


Photo Two

Photo Two Caption Rear View 6-21-19

Clear Photo Two

# **BUILDING PHOTOGRAPHS**

**ELEVATION CERTIFICATE** 

Continuation Page

OMB No. 1660-0008 Expiration Date: November 30, 2018

| IMPORTANT: In these spaces, copy the                      | FOR INSURANCE COMPANY USE |       |  |
|---|---------------------------|-------|--|
| Building Street Address (including Apt., 551 Berkley Road | Policy Number:            |       |  |
| City  | Company NAIC Number       |       |  |
| Borough of 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.

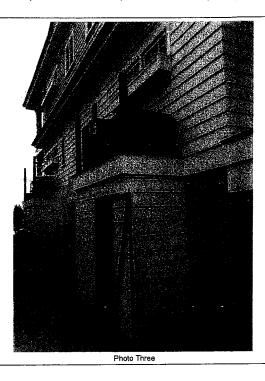


Photo Three Caption A/C Unit 6-21-19

Clear Photo Three

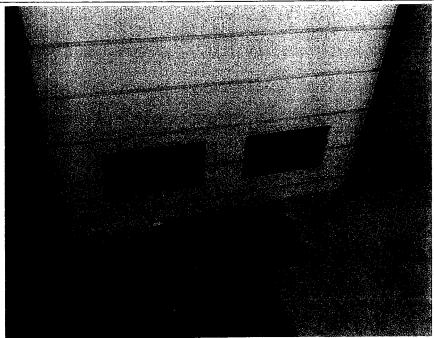


Photo Four

Photo Four Caption 8"x16" Opening 6-26-19

Clear Photo Four

# **BUILDING PHOTOGRAPHS**

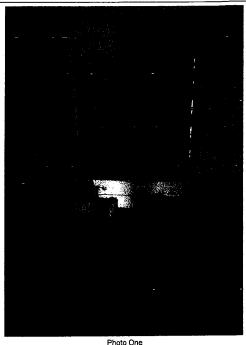
**ELEVATION CERTIFICATE** 

See Instructions for Item A6.

OMB No. 1660-0008 Expiration Date: November 30, 2018

| IMPORTANT: In these spaces, copy t                        | FOR INSURANCE COMPANY USE |  |  |  |
|---|---------------------------|--|--|--|
| Building Street Address (including Apt., 551 Berkley Road | Policy Number:            |  |  |  |
| City  | Company NAIC Number       |  |  |  |
| Borough of Stone Harbor                                   | New Jersey                |  |  |  |

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.



Break Way Walls 6-26-19 Photo One Caption

Clear Photo One

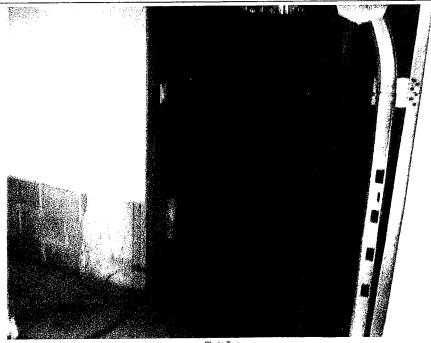


Photo Two

36"x36" Opening 6-26-19 Photo Two Caption



Most Widely Accepted and Trusted

# **ICC-ES Evaluation Report**

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

ESR-2074

Reissued 02/2019
This report is subject to renewal 02/2021.

DIVISION: 08 00 00-OPENINGS

SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

# REPORT HOLDER:

# SMART VENT PRODUCTS, INC.

## **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

FLOOD VENT SEALING KIT #1540-526



2014 Recipient of Prestigious Western States Seismic Policy Council VSSPC) Award in Excellence"



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ICC-ES Evaluation Report

ESR-2074

Reissued February 2019

This report is subject to renewal February 2021.

<u>www.icc-es.org</u> | (800) 423-8587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 03 00 00—OPENINGS

Saction: 08 95 43—Vants/Foundation Flood Vants

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

**EVALUATION SUBJECT:** 

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1640-620; #1640-621; #1640-510; #1640-611; #1640-670; #1640-674; #1640-624; #1640-514 FLOOD VENT SEALING KIT #1640-526

## 1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 International Building Code® (ISC)
- 2018, 2015, 2012, 2009 and 2006 International Residential Code<sup>®</sup> (IRC)
- 2018 International Energy Conservation Code® (IECC)
- 2013 Abu Dhabi International Building Code (ADIBC)<sup>†</sup>

<sup>†</sup>The ADtBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

## Properties avaluated:

- Physical operation
- Water flow

## 2.0 U**S**ES

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® Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. 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 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 Vantilation:

The SmartVENT® Model #1540-510 and SmartVENT® Overhead Door Model #1540-514 both have screen covers with ½-inch-by-½-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.

#### 3.4 Flood Vent Sealing Kit:

The Flood Vent Sealing Kit Model #1540-526 is used with SmartVENT® Model #1540-520. It is a Homasote 440 Sound Barrier® (ESR-1374) insert with 21 - 2-inch-by-2-inch (51 mm x 51 mm) squares cut in it. See Figure 4.

# 4.0 DESIGN AND INSTALLATION

# 4.1 SmartVENT® and FloodVENT®:

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



The state of the s

- a Below the case flood elevation.
- \*Vith 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.

# 1.2 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<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.

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## 3.4 EVIDENCE SUBMITTED

- 3.1 Data in accordance with the ICC-ES Acceptance Oriteria for Mechanically Operated Flood Verns (AC364), dated August 2015 (editorially revised October 2017).
- 3.2 Fest report on air infiltration in accordance with ASTM E283.

#### 7.0 IDENTIFICATION

- 7.1 The Smart VENT® models and the Flood Vent Sealing Kit 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).
- 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

#### 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®                         | 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 <sup>®</sup> Stacker     | 1540-521     | 16" X 16"  | 400                |

For SI: 1 inch = 25.4 mm; 1 square foot =  $m^2$ 

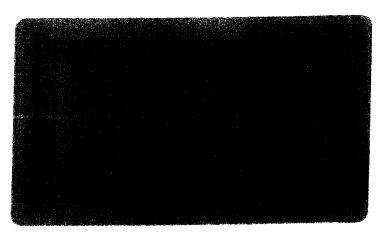


FIGURE 1-SMART VENT: MODEL 1540-510

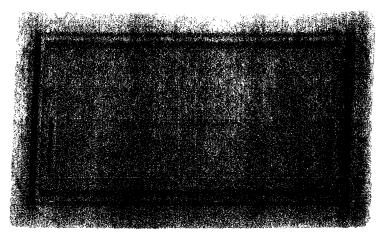


FIGURE 2-SMART VENT MODEL 1540-520

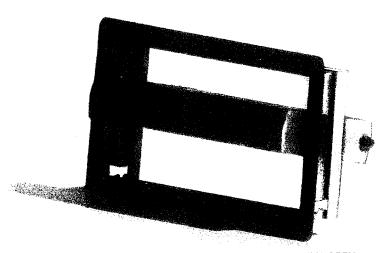


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

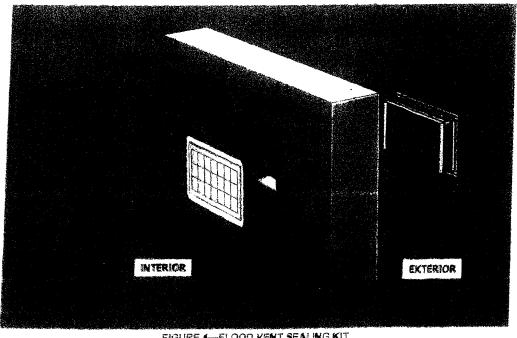


FIGURE -- FLOOD VENT SEALING KIT



ICC-ES Evaluation Report

# ESR-2074 CBC and GRC Supplement

Reissued February 2019

This report is subject to renewal February 2021.

<u>vvwvv.icc-es.org</u> | (300) 423-5587 | (562) 699-0543

A Subsidiary of the International Code Council® 

DIVISION: 08 00 00—OPENINGS

Section: 03 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

**EVALUATION SUBJECT:** 

SMART VENT<sup>®</sup> AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; \$1540-574; \$1540-524; \$1540-514 FLOOD VENT SEALING KIT #1540-526

#### 1.0 REPORT PURPOSE AND SCOPE

#### Purposa:

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

#### Applicable code adition:

- 2016 California Building Code (CBC)
- 2016 California Residential Code (CRC)

# 2.0 CONCLUSIONS

#### 2.1 CSC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with 2016 CBC Chapter 12, provided the design and installation are in accordance with the 2015 International Building Code® (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 12, 16 and 16A, as applicable.

The products recognized in this supplement have not been evaluated under CBC Chapter 7A for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

# 2.2 CRC:

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 2016 CRC, provided the design and installation are in accordance with the 2015 International  $Residential\ Code^{*0}$  (IRC) provisions noted in the master report.

The products recognized in this supplement have not been evaluated under 2016 CRC Chapter R337, for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

The products recognized in this supplement have not been evaluated for compliance with the International Wildland-Urban Interface Code®.

This supplement expires concurrently with the master report, reissued February 2019.





ICC-ES Evaluation Report

# ESR-2074 FBC Supplement

Reissued February 2019

This report is subject to renewal February 2021

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00-OPENINGS

Section: 08 95 43—Vants/Foundation Flood Vants

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUSJECT:

SMART VENT<sup>®</sup> AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514 FLOOD VENT SEALING KIT #1340-526

#### 1.0 REPORT PURPOSE AND SCOPE

#### Purposa:

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 aditions:

- 2017 Florida Building Code—Building
- 2017 Florida Building Code—Residential

## 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 Florida Building Code—Building and the FRC, provided the design and installation are in accordance with the 2015 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 Florida Building Code—Building and the Florida Building Code—Residential.

For products failing 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).

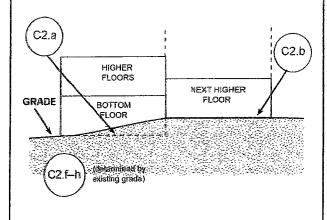
This supplement expires concurrently with the master report, reissued February 2019.



#### DIAGRAM 3

All split-level buildings that are slab-on-grade, either detached or row type (e.g., townhouses); with or without attached garage.

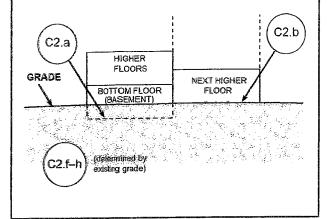
**Distinguishing Feature** – The bottom floor (excluding garage) is at or above ground level (grade) on at least 1 side.\*



#### DIAGRAM 4

All split-level buildings (other than slab-on-grade), either detached or row type (e.g., townhouses); with or without attached garage.

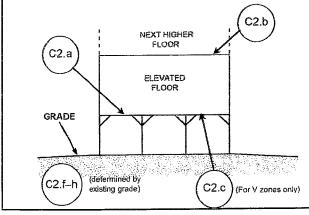
**Distinguishing Feature** – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.\*



#### DIAGRAM 5

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

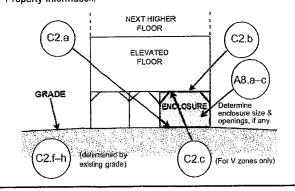
**Distinguishing Feature** – For all zones, the area below the elevated floor is open, with no obstruction to flow of floodwaters (open lattice work and/or insect screening is permissible).



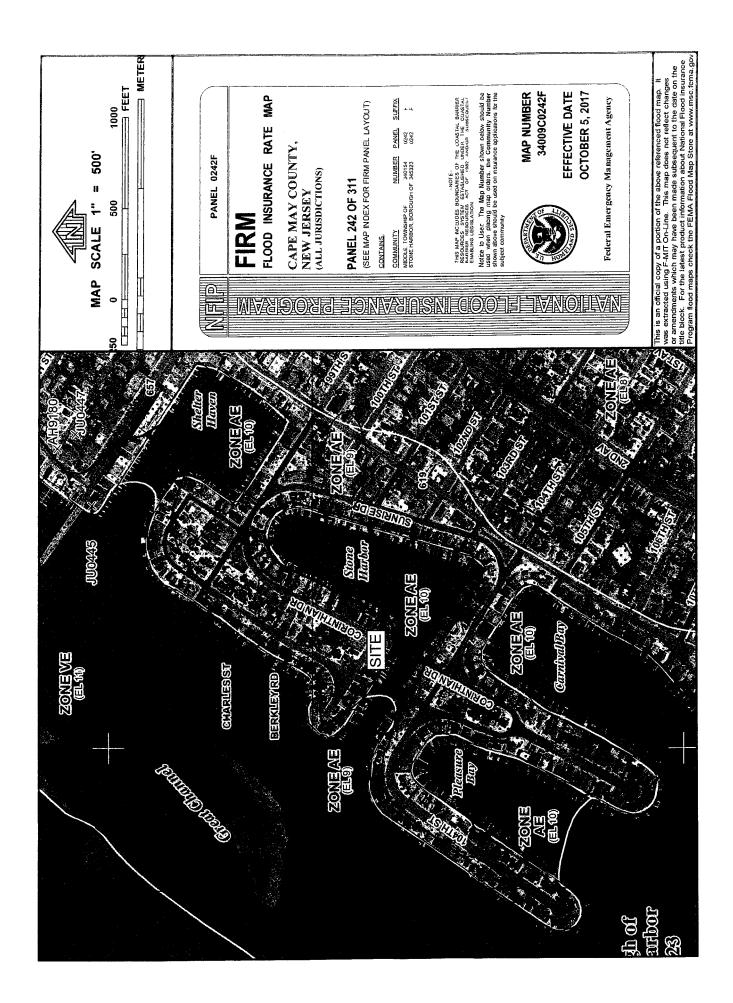
#### **DIAGRAM 6**

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

**Distinguishing Feature** – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings\*\* present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.



- \* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.
- \*\* An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.



| MAP SCALE 1" = 500° 500 0 500 1000   | PANEL 0291F  | FRM   | FLOOD INSURANCE RATE MAP                 |   |  | COMMANITY NUMBER PANEL SUFFIX  CAPE MAY, CITY OF 345288 0291 F  TIDE  OF TOPE MAY, BOROUGH 340180 0291 F                                    | THIS MAP NICLUDES BOUNDARIES OF THE COASTAL BARRIER RESOURCES WYSTEL REAGUES OF THE COASTAL BARRIER RESOURCES WYSTEL REAGUES OF THE REAGUES OF THE COASTAL BARRIER RESOURCES WYSTEL REAGUES OF THE AND WINDER THE GOASTAL RESOURCES WAS AND THE AND WINDER THE AND THE | MAP NUMBER 34009C0291F   | Federal Emergency Management Agency   | This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov |
|--|--|---|--|---|--|---|--|--|---|--|
| Areas of 0.2% annual chairs flood, areas of 1% annual chairs most with average depths of ess than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.  OTHER AREAS  Areas determined to be outside the 0.2% annual chance floodplain.  Areas in which flood hazards are undetermined, but possible.  COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS  OTHERWISE PROTECTED AREAS (OPAs) | CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.  1% annual chance floodplain boundary | O.270 allinda Grands inouprant bodindary<br>Floodway boundary | Zone D boundary<br>CBRS and OPA boundary | Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Bevations, flood depths or flood velocities. | — Limit of Moderate Wave Action<br>Base Flood Elevation line and value; elevation in feet* | (EL 987) Base Flood Elevation value where uniform within zone; elevation in feet* * Referenced to the North American Vertical Datum of 1988 | Cross section line Transect ine Culvert, Flume, Penstock or Aqueduct Road or Railroad Bridge Footbridge  | Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere 1000-meter Universal Transverse Mercator grid values, zone 18 | 5000-foot grid values: New Jersey State Plane coordinate system (FIPSZONE 2900), Transverse Mercator projection Bench mark (see explanation in Notes to Users section of this FIRM panel) | River Mile   |
| ZONE X Areas of average mile; and ZONE X Areas de ZONE D Areas de COASTA  COASTA  OTHERV   | CBRS areas and OPAs are nor  |   |  |   | 513 was  | (EL 987)<br>* Referenced to the North Am  |  | 87°0745", 32°22°30"<br>²476°00°nN  | 600000 FT<br>DX5510 x   | • M1.5   |

